LOGIC 3

Spectrum Club

BRITAIN'S No.1 SOFTWARE CLUB

AUTUMN ISSUE 1984

LOGIC 3's SOFTWARE PANEL

Neil Atkinson, pupil of Sir William Borlase School, spends his weekends in a shop selling home computer software, intends to work as a journalist.

Andrew Goltz, director of Logic 3, spent 6 years with Commodore's UK and International Division, instigated Commodore's 'Approved Product' scheme for third party software.

Bliss Healey, graduate of London School of Economics, has translated business software into French, currently working on the design of graphics for educational software.

Tony Takoushi, software consultant to "Computer Games and Systems Retailer", regular contributor to "Personal Computer Games", runs his own software consultancy service—TACS.

Careful attention to product storage and a computer-assisted stock control system means a rapid turn-around of customer orders.

LOGIC 3

Best products–Best prices

Welcome to the second edition of the Logic 3 Spectrum Club. Our reviewers have carefully sifted through hundreds of programs to select only the very best, and—as we hope you will agree—our prices are also the very best that you will find anywhere.

INSIDE

★ **EDUCATION**
A selection of the most effective educational programs available on the Spectrum designed for children from the age of 4 to 16.

★ **GAMES**
The best games for the Spectrum selected by our own review panel and rated according to: graphics, sound, colour, originality and interest.

★ **PROGRAMMING**
The 'Learn BASIC' tutorials really show you how to write structured programs in easy to understand stages.

★ **UTILITIES**
Design your own games.

★ **SPECTRUM CLUB**
Save up to ½ the cost of your Spectrum Software.

LOGIC 3

Spectrum Club

The Logic 3 Spectrum Club has something for everyone: regular reviews, excellent savings on all the latest top quality games and educational software, and discounts on hardware.

NEW MEMBERS INTRODUCTORY OFFER

Join Logic 3 Spectrum Club *within 30 days* and benefit from our new members introductory offer to purchase our "Software Specials" at a huge discount.

MEMBERSHIP IS ONLY £3.00 PER YEAR

(Equivalent to only 25p per month)

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LOGIC 3

MEMBERSHIP DEPT.
THE LOGIC 3 SPECTRUM CLUB
MOUNTBATTEN HOUSE
VICTORIA STREET
WINDSOR, BERKS.

CLUB OFFERS 50% OFF

Following the outstanding success of the Logic 3 Spectrum Club launch, now comes the 2nd edition of the Club catalogue—offering huge discounts to Club Members over a wide range of products.

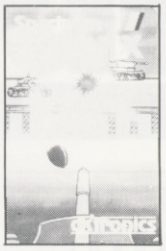
Thanks to its position as a major distributor of Spectrum software Logic 3 is able to bulk purchase software and offer excellent value to Club Members.

Members can choose from an extensive list of products including best-selling games and educational programs.

The Club is continuing its special offer to new members. Many items in the catalogue are marked down at new member discounts at up to 50%—and a few titles are available at £1.95, while stocks last. But hurry—the new member's offer is only valid for 30 days.

ARCADE

3D Tank



Machine: 16/48k
Joystick: None (Redefineable Keys)
Category: Arcade/Strategy
Publisher: DK' Tronics

New Member £2.75 Special Price

Price: £4.95 **Club price: £3.75**

As the only surviving gunner on the very last Defence Barrier, only your skill and daring can save your people from the enemy tank force which is fast approaching. Your radar scanner will assist you in detecting the approaching tanks, and to track and destroy them! An excellent three dimensional simulation which will enthrall all enthusiasts of the new arcade games which mix superb arcade action with strategic planning.

Ratings: /10

Graphics: 8 **Originality:** 7
Sound: 5 **Interest:** 7
Colour: 6 **Order code:** 3DTAN

Ad Astra

Machine: 48k
Joystick: Kempston Cursor Sinclair Interface II
Category: Arcade
Publisher: Gargoyle Games

Price: £5.95 **Club price: £4.45**

Your patrol ship is coasting in deep space when suddenly your peace is disturbed by Space Pirates. Armed with scatter bombs, fragmentation bombs and their giant mine-layers, the Pirates represent a serious threat to inter-stellar peace. Use your courage and lightning reactions in an action-packed arcade game.

Ratings: /10

Graphics: 8 **Originality:** 6
Sound: 7 **Interest:** 8
Colour: 7 **Order code:** ADAST

Arcadia

Machine: 16/48k
Joystick: None
Category: Arcade
Publisher: Imagine

New Member £1.95 Special Price

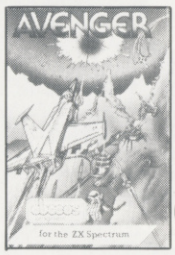
Price: £5.50 **Club price: £4.15**

Your specially equipped craft, the Arcadia, has to face the deadly races of the Astorian Empire. At your disposal are the dual plasma disruptor guns and ion thrust drive. Quite simply you must destroy as many of the enemy as possible who will attack in formation in various waves, each wave lasting a set time period. If you destroy the entire fleet within the time limit another fleet will attack.
Arcadia is a Spectrum classic with enough action to satisfy even the most demanding alien annihilators!

Ratings: /10

Graphics: 6 **Originality:** 5
Sound: 7 **Interest:** 6
Colour: 6 **Order code:** ARCSP

Avenger



Machine: 16/48k
Joystick: No
Category: Arcade
Publisher: Abacus

New Member £1.95 Special Price

Price: £5.95 **Club price: £4.45**

Flying above mountains—the terrain is very dangerous—you have to do your best to survive. Attack the launch pads, missile silos, etc. using lasers and bombs. However, the enemy fighters are a lethal threat with their own guided missiles, lasers and bombs.
Take care—you have been warned.

Ratings: /10

Graphics: 5 **Originality:** 6
Sound: 4 **Interest:** 5
Colour: 6 **Order code:** AVENG

Beaky and the Eggsnatchers

Machine: 48k
Joystick: Kempston Sinclair II Cursor Protek
Category: Arcade
Publisher: Fantasy

Price: £5.50 **Club price: £4.50**

Beaky belongs to the family of Andromedan armed Condors, the rare goggled variety! Beaky possesses magical powers with which he can defend himself against other alien creatures. Your objective is to try and brood, hatch out and rear as many little Beakys as possible through 12 different screens of formidable arcade action.

Ratings: /10

Graphics: 8 **Originality:** 9
Sound: 7 **Interest:** 7
Colour: 6 **Order code:** BEAKY

Blade Alley

Machine: 48k
Joystick: Kempston
Category: Arcade
Publisher: P.S.S.

Price: £5.95 **Club price: £4.75**

As you climb into your ion drive interceptor you wonder if your nerves will stand up to another mission. Can you take the stunning 3D graphics as the alien ships hurtle towards you?
Incredible arcade action featuring many different scenes.

Ratings: /10

Graphics: 8 **Originality:** 7
Sound: 7 **Interest:** 8
Colour: 7 **Order code:** BLAAL

Blue Thunder

Machine: 48k
Joystick: Kempston
Category: Arcade
Publisher: Richard Wilcox

Price: £5.95 **Club price: 4.25**

After skilfully piloting your jetcopter through a bombardment of electronic storms, you must then face yet another wave of deadly jet fighters. You must penetrate deep beyond enemy lines, break through the defence screen of a remote island, and rescue your comrades, who are held captive by an unstable nuclear reactor which you must first destroy.
High quality graphics with very smooth scrolling scenery.

Ratings: /10

Graphics: 8 **Originality:** 7
Sound: 6 **Interest:** 7
Colour: 7 **Order code:** BLUTH

Bugaboo

Machine: 48k
Joystick: None
Category: Arcade
Publisher: Quicksilva

New Member £3.55 Special Price

Price: £6.95 **Club price: £5.25**

New planets offer new challenges and your beloved Bugaboo has to search the planet surface to find a safe place for himself and the helpless flea. Great action, character, colours and sound make this a compulsive and original game which offers some of the finest scrolling scenery ever produced for the Spectrum.

Ratings: /10

Graphics: 9 **Originality:** 8
Sound: 6 **Interest:** 7
Colour: 8 **Order code:** BUGAB

Cavern Fighter

Machine: 48k
Joystick: Kempston
Category: Arcade
Publisher: Bug Byte

Price: £5.95 **Club price: £4.25**

The newest and best 'skramble' type game. Guide your ship, Gamma 14 through the deadly caverns, the automatic missiles, the precious fuel dumps, the cavern guardians, the asteroids, but can you destroy the dictator's base? Now is the chance for you to find out!
Detailed graphics and very smooth screen scrolling make this undoubtedly the best 'skramble' game yet.

Ratings: /10

Graphics: 7 **Originality:** 5
Sound: 6 **Interest:** 8
Colour: 7 **Order code:** CAVER

Cookie

Machine: 16/48k
Joystick: Kempston Protek
Category: Arcade
Publisher: Ultimate

New Member £2.75 Special Price

Price: £5.50 **Club price: £4.15**

Cookie has all the ingredients for a great arcade game that is fun to play. Charlie the Chef keeps all his ingredients locked away in the pantry and only puts them out when he needs them. This makes them rather angry and the ingredients jump out of the pantry and attempt to knock Charlie into his cooking bowl! Charlie can only stun them with flour bombs and try to finish his creation as quickly as possible.

Ratings: /10

Graphics: 9 **Originality:** 8
Sound: 6 **Interest:** 6
Colour: 8 **Order code:** COOKI

Eskimo Eddie

Machine: 48k
Joystick: Kempston Cursor
Category: Arcade
Publisher: Ocean

Price: £5.90 **Club price: £4.45**

Featuring Percy
and Grauer the
you have to res
evil clutches of
must defend hir
deadly Snowbu
iceblocks for pr
he thinks he's v
nastier. Good lu

Ratings: /10

Graphics: 7
Sound: 7
Colour: 7

Exterminat

Price: £5.95

As the Extermin
screen after scr
goods' who tak
forms each with
attack. Your mi
accept it, is qui
alive as long as

Ratings: /10

Graphics: 7
Sound: 6
Colour: 6

Factory Br

Price: £5.95

Far away on th
trouble at the F
has been taken
monsters, who
factory's self d
The hero, Zirke
left, and it is yo
through perilou
key to the facto
the first screen
be transformed
and as he waits
energy to reach
defend himself
micron rays. W
reaches Zirkey
the latest desig
III robot. He is
the deadly reje
gone out of co
to survive, ther
and many mor
A really origina
graphics dema
skill.

Ratings: /10

Graphics: 9
Sound: 7
Colour: 8

Featuring Percy Penguin, Snailbug and Grauer the polar bear. Firstly, you have to rescue Percy from the evil clutches of Grauer. Then Percy must defend himself, against the deadly Snowbug, pushing the iceblocks for protection. Each time he thinks he's won, the bugs get nastier. Good luck!

Ratings: /10

Graphics: 7 **Originality:** 8
Sound: 7 **Interest:** 8
Colour: 7 **Order code:** ESKED

Exterminator

Machine: 16/48k
Joystick: Kempston Protek
Category: Arcade
Publisher: Silversoft

New Member £1.95 Special Price

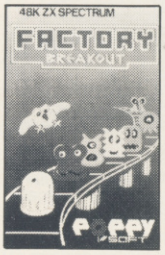
Price: £5.95 **Club price: £4.45**

As the Exterminator you must clear screen after screen of alien 'no goods' who take up to 7 different forms each with its own brand of attack. Your mission, should you accept it, is quite simply-to stay alive as long as possible!

Ratings: /10

Graphics: 7 **Originality:** 6
Sound: 6 **Interest:** 7
Colour: 6 **Order code:** EXTER

Factory Breakout



Machine: 48k
Joystick: Kempston Cursor
Category: Arcade
Publisher: Poppy Soft

Price: £5.95 **Club price: £4.75**

Far away on the Xial, there is trouble at the Rocket factory. It has been taken over by alien monsters, who have activated the factory's self destruct mechanism. The hero, Zirkey, is the only robot left, and it is your job to guide him through perilous screens to find the key to the factory and escape. On the first screen, Zirkey has yet to be transformed into a full robot, and as he waits for the column of energy to reach him, he must defend himself from the deadly micron rays. When the energy reaches Zirkey he transforms into the latest design, a Zirconium Mk III robot. He is then transported to the deadly rejection line, which has gone out of control. If he manages to survive, then onto the lift room and many more hazards.
A really original game, with superb graphics demanding a high level of skill.

Ratings: /10

Graphics: 9 **Originality:** 9
Sound: 7 **Interest:** 8
Colour: 8 **Order code:** FACBR

Firebirds

Machine: 16/48k
Joystick: None
Category: Arcade
Publisher: Softek

New Member £2.95 Special Price

Price: £5.95 **Club price: £4.45**

A fast moving, smooth, hi-resolution 'shoot'em up game' with 4 stages to overcome. At first a host of weaving firebirds will attack, then a blue weaver will join them in the second stage; the third stage has white bombers who will try to ram your ship. Finally, there's the mothership confrontation but first you must blast through its shields whilst avoiding the deadly firebirds who will commit suicide in an attempt to protect their home base.

Ratings: /10

Graphics: 8 **Originality:** 8
Sound: 7 **Interest:** 8
Colour: 7 **Order code:** FIREB

Fireflash

Machine: 16/48k
Joystick: No
Category: Arcade
Publisher: Abacus

New Member £1.95 Special Price

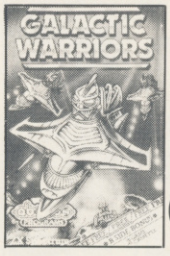
Price: £5.95 **Club price: £4.45**

Fast!Fast!Fast! You are in command of 4 missile launch sites, protecting your planet from the multihead missiles launched by kamikaze enemies. There is also a facility to redesign the game and a free game on the 'B' side.

Ratings: /10

Graphics: 5 **Originality:** 6
Sound: 4 **Interest:** 6
Colour: 6 **Order code:** FIREF

Galactic Warriors



Machine: 16/48k
Joystick: No
Category: Arcade
Publisher: Abacus

New Member £1.95 Special Price

Price: £5.95 **Club price: £4.45**

Two arcade classics—Space Invaders and Centipede—combined to make one of the fastest 'shoot 'em up' games around. You are armed with lasers, but the enemy? Well just wait and see!
Good graphics, two arcade classics in one.

Ratings: /10

Graphics: 6 **Originality:** 6
Sound: 5 **Interest:** 7
Colour: 7 **Order code:** GALWA

Harrier Attack

Machine: 16/48k
Joystick: No
Category: Arcade
Publisher: Durell Software

New Member £3.45 Special Price

Price: £5.95 **Club price: £4.45**

As you take off from your aircraft carrier you realise that you are on your own. Your task is to destroy the enemy's defences. You are armed with bombs and rockets. As you fly over the enemy island your plane is damaged by anti aircraft fire—but if you eject you may just survive for another mission!

Ratings: /10

Graphics: 7 **Originality:** 7
Sound: 6 **Interest:** 7
Colour: 7 **Order code:** HARSP

Hunchback

Machine: 48k
Joystick: Kempston Protek Sinclair II
Category: Arcade
Publisher: Ocean

New Member £4.45 Special Price

Price: £6.95 **Club price: £5.45**

Quasimodo must rescue the imprisoned Esmeralda from the castle stronghold. Jump along the ramparts, swing over the fiery pits, dodge the arrows and fireballs and remember to keep ahead of the chasing knight. 15 screens of fun and excitement, each one more difficult than the last.
An arcade 'classic'.

Ratings: /10

Graphics: 9 **Originality:** 5
Sound: 6 **Interest:** 8
Colour: 7 **Order code:** HUNSP

Jetpac

Machine: 16/48k
Joystick: Kempston
Category: Arcade
Publisher: Ultimate

New Member £2.75 Special Price

Price: £5.50 **Club price: £4.15**

As chief test pilot you have to assemble the three rocket sections and continue your voyage to the next planet. Certain planets hold vast treasures and you can try to collect them while preparing your rocket. Once the rocket is assembled you need six fuel pads before you can blast off. You may use your jet pac and laser to move around the planet to collect fuel and treasure, and ward off the alien attacks.

Ratings: /10

Graphics: 9 **Originality:** 8
Sound: 8 **Interest:** 6
Colour: 8 **Order code:** JETPA

Jack and the Beanstalk

Machine: 48k
Joystick: Kempston
Category: Arcade
Publisher: Thor Software

Price: £5.95 **Club price: £4.50**

This game is no fairytale—more like a nightmare! First you climb the beanstalk, then, when you have found the castle you must search for the giant's riches. Fight off the creatures that guard the goose that lays golden eggs.
Superfast graphics and action combine to make a really entertaining game.

Ratings: /10

Graphics: 8 **Originality:** 9
Sound: 8 **Interest:** 8
Colour: 7 **Order code:** JTB

Lunar Jetman

Machine: 48k
Joystick: Kempston
Category: Arcade
Publisher: Ultimate

New Member £3.15 Special Price

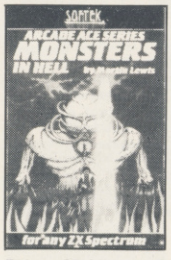
Price: £5.50 **Club price: £4.15**

This is the sequel to Ultimate's ever popular Jet Pac. You have landed on an alien planet. your mission is to destroy the enemy missile installation. Your equipment includes: a Hyper-glide Moon Rover, Quad Photon Lasers, a Bridging Unit and anything else that may come your way as you explore the planet.

Ratings: /10

Graphics: 9 **Originality:** 8
Sound: 8 **Interest:** 7
Colour: 8 **Order code:** LUNJE

Monsters in Hell



Machine: 16/48k
Joystick: No
Category: Arcade
Publisher: Softek

New Member £1.95 Special Price

Price: £5.95 **Club price: £4.45**

Hell is not the safest place to hang around in especially when you have to defend yourself from the mad monk and his demons.

Ratings: /10

Graphics: 7 **Originality:** 7
Sound: 5 **Interest:** 7
Colour: 6 **Order code:** MIH

Missile Defence

Machine: 16/48k
Joystick: Kempston
Category: Arcade
Publisher: Anirog

New Member £3.45 Special Price

Price: £5.95 **Club price: £4.45**

This is one of the 6 versions of Missile Command currently available for the Spectrum and once you have experienced this game you will not need to see the others. This is one of the fastest, smoothest and most action packed games ever written for the Spectrum. You have 6 cities to defend with your 3 laser bases, by intercepting the IBM rockets as they descend on your cities and destroying the planes and 'smart bombs' which can evade your fire.

Ratings: /10

Graphics: 7 **Originality:** 5
Sound: 6 **Interest:** 8
Colour: 7 **Order code:** MISDE

Morris meets the Bikers

Machine: ZX Spectrum, 16k/48k
Joystick: Kempston AGF Protek
Category: Arcade
Publisher: Automata UK

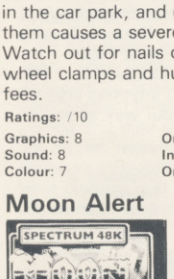
Price: £6.00 **Club price: £4.00**

Your task, as Morris, is to drive around the car park collecting coins (10), to feed into the slot at the closed barrier. Unfortunately, kamikaze bikers are running loose in the car park, and crashing into them causes a severe loss of life. Watch out for nails on the road, wheel clamps and huge parking fees.

Ratings: /10

Graphics: 8 **Originality:** 9
Sound: 8 **Interest:** 8
Colour: 7 **Order code:** MMTB

Moon Alert



Machine: 48k
Joystick: Sinclair Interface II Protek Kempston
Category: Arcade
Publisher: Ocean

Price: £5.95 **Club price: £3.95**

Driving your Buggy, you race across a rugged terrain, (featuring over *300* different screens), trying to find help. Your spaceship is useless, this is your last chance, one false move and its all over. Accelerate, brake, jump over canyons and blast rocks—but be quick—the aliens that destroyed your ship are now after you and your buggy.

Ratings: /10

Graphics: 7 **Originality:** 8
Sound: 9 **Interest:** 7
Colour: 7 **Order code:** MOOAL

Mr. Wimpy

Machine: 48k
Joystick: Kempston Sinclair Interface2 Protek
Category: Arcade
Publisher: Ocean

New Member £3.45 Special Price

Price: £5.90 **Club price: £4.45**

Nasties include Ogy Egg, Pam Pickle and Sid Sos, but, these can be overcome with a quick dusting of pepper. Firstly collect your tray, and then on the next screen build up your burger, complete with cheese and relish.

Ratings: /10

Graphics: 8 **Originality:** 9
Sound: 7 **Interest:** 7
Colour: 7 **Order code:** MRWSP

Munnery's Mergatroids

Machine: 48k
Joystick: No
Category: Arcade
Publisher: Abacus

New Member £1.95 Special Price

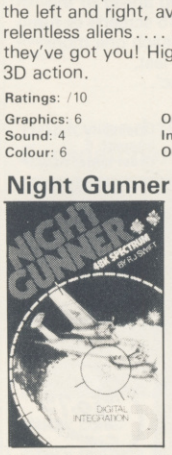
Price: £5.95 **Club price: £4.45**

Featuring 3D high-res graphics this is a non stop action game. Bank to the left and right, avoiding the relentless aliens.... but its too late, they've got you! Highly addictive 3D action.

Ratings: /10

Graphics: 6 **Originality:** 5
Sound: 4 **Interest:** 5
Colour: 6 **Order code:** MUNME

Night Gunner



Machine: 48k
Joystick: Kempston Sinclair AGF
Category: Arcade
Publisher: Digital Integration

Price: £6.95 **Club price: £5.45**

Night Gunner is an action packed arcade style game based on a Second World War scenario. You are both gunner and bomb aimer and you must keep your wits about you to defend your plane against enemy attack and also destroy the ground targets in 30 different missions.

Ratings: /10

Graphics: 9 **Originality:** 9
Sound: 8 **Interest:** 8
Colour: 8 **Order code:** NIGGU

Penetrator

Melbourne House software for the
48K SPECTRUM
PENETRATOR
"Amazingly Fast Arcade Action! Includes "Training Mode and "Unique Customizing Feature. The fastest and most exciting game for your 48K Spectrum

Machine: 48k
Joystick: Kempson
Category: Arcade
Publisher: Melbourne House

New Member £3.45 Special Price

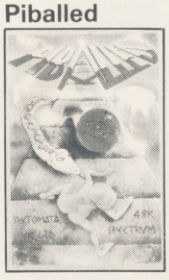
Price: £6.95 **Club price: £5.20**

Your mission is to penetrate through 4 defence rings and blow up an illegal cache of neutron bombs: enemy missiles and radar bases track your movements and the landscape is as treacherous as your enemies. This 48k version of Skramble offers some of the finest graphics and fastest action available on the Spectrum. There is even a facility to customise the landscape to your own taste!

Ratings: /10

Graphics: 9 **Originality:** 5
Sound: 6 **Interest:** 8
Colour: 6 **Order code:** PENET

Piballed



Machine: 48k
Joystick: Kempston
Category: Arcade
Publisher: Automata

New Member £4.00 Special Price

Price: £6.00 **Club price: £4.50**

An excellent implementation of Cuthbert/Q*Bert/Hexpert by Automata for the Spectrum. You move around the blocks of a pyramid, trying to avoid the falling granite balls, not to mention Piman and his friends! Good graphics and good gameplay makes this an enjoyable arcade game with a strange addictiveness.

Ratings: /10

Graphics: 8 **Originality:** 6
Sound: 8 **Interest:** 7
Colour: 8 **Order code:** PIBAL

Pi-Eyed

Machine: 48k
Joystick: Kempston
Category: Arcade
Publisher: Automata

New Member £3.45 Special Price

Price: £6.90 **Club price: £5.20**

Another cult game from Automata. Help Piman weave through the traffic on his way to the pub. As Piman runs along the streets, avoid the motorists by diving quickly—into the nearest building—hopefully a pub so that the Piman can slake his terrible thirst. When you've finished causing havoc with your Piman, there's the free 'hit' single on the flip side!

Ratings: /10

Graphics: 6 **Originality:** 8
Sound: 3 **Interest:** 7
Colour: 7 **Order code:** PIEYE

Proteus

Machine: 48k
Joystick: No
Category: Arcade
Publisher: Abacus

New Member £1.95 Special Price

Price: £5.95 **Club price: £4.45**

A quadrant of the enemy galaxy, littered with planet debris, patrolled by hostile aliens, stretches between the main Battle fleet and your enemy's planet. You are armed with a photon cannon and guided missiles. Boost to the next quadrant if you can.
Great arcade action (also free game on 'B' side).

Ratings: /10

Graphics: 5 **Originality:** 6
Sound: 4 **Interest:** 7
Colour: 6 **Order code:** PROTE

Psst

Machine: 16/48k
Joystick: Kempson
Category: Arcade
Publisher: Ultimate

New Member £1.95 Special Price

Price: £5.50 **Club price: £4.15**

As Robbie the Robot, you have to feed your prize Thyrgodion Megga Christanthodil the odd bag of compost to keep it growing, but beware the deadly insects who have invaded your garden and are attempting to eat your flower. You may destroy these nasties by using one of 3 sprays, but make sure it is the right one or they will only be stunned and carry on trying to feast on your prize possession.

Ratings: /10

Graphics: 9 **Originality:** 8
Sound: 7 **Interest:** 7
Colour: 8 **Order code:** PSST

Sentinel

Machine: 16/48k
Joystick: No
Category: Arcade
Publisher: Abacus

New Member £1.95 Special Price

Price: £5.95 **Club price: £4.45**

Your galaxy is under constant attack from your enemy. Before the whole enemy fleet can enter into your system it must destroy

the Sentinel. That's where you come in. Piloting a space ship, armed with photon bolts and missiles, you must delay the enemy for as long as possible—but their numbers increase—can you take it?

Ratings: /10
Graphics: 6
Sound: 5
Colour: 6
Originality: 7
Interest: 6
Order code: SENTI

Spectron

Machine: 48k
Joystick: No
Category: Arcade
Publisher: Virgin

New Member £1.95 Special Price

Price: £5.95 **Club price: £4.45**

A fast shooting arcade game, demanding quick reflexes. Enemies include swarmers, speeders and electrons. Your robot fires automatically as you guide it in any direction.
Good graphics and really fast classic arcade action.

Ratings: /10
Graphics: 7
Sound: 4
Colour: 5
Originality: 6
Interest: 7
Order code: SPECT

Timegate

Machine: 48k
Joystick: No
Category: Arcade
Publisher: Quicksilva

New Member £3.55 Special Price

Price: £6.95 **Club price: £5.55**

The enemy has left a trail of ravaged planets and you must avenge the wanton terror and destruction they caused. You must travel through space and time to their home planet and avenge your people's honour. You will engage the enemy on your travels in space and on various planets, your journey being aided by the use of the gates which link the future and past. The screen presentation and battle confrontations help establish this arcade game as one of the finest Star Trek/Star Wars formats available.

Ratings: /10
Graphics: 8
Sound: 9
Colour: 7
Originality: 7
Interest: 8
Order code: TIMEG

Trans Am

Machine: 16/48k
Joystick: Kempston
Category: Arcade
Publisher: Ultimate

New Member £2.95 Special Price

Price: £5.50 **Club price: £4.15**

The year is 3472 and the last great race is about to begin, you must use a super blown red racer to travel across the US, and collect the 8 cups of ultimate. Your enemies, the deadly black turbos will try to ram you at every opportunity and they must be avoided whilst conserving precious fuel. A superb car chase/race game using over 600 times the actual screen area.

Ratings: /10
Graphics: 8
Sound: 6
Colour: 7
Originality: 7
Interest: 7
Order code: TRAAM

Trashman

Machine: 48k
Joystick: Kempston Cursor Protek Sinclair Interface II
Category: Arcade
Publisher: New Generation Software

Price: £5.95 **Club price: £4.45**

Your job application having been accepted, you start as Trashman by having to collect five dustbins, and then empty them into the waiting dustcart.
However, life is not easy. Your job is hampered by having to cross busy roads, houses guarded by fierce dogs and the impatient driver of the dustcart.
A highly original game, with very impressive graphics. Highly recommended.

Ratings: /10
Graphics: 9
Sound: 8
Colour: 8
Originality: 10
Interest: 9
Order code: TRASH

Wheelie

Machine: 48k
Joystick: Kempston AGF
Category: Arcade
Publisher: Microsphere

Price: £5.95 **Club price: £4.45**

You drive a 4-cylinder fuel-injected turbocharged Zedexaki 500. Your ride is fast, exhilarating. You are given the chance of a lifetime to jump buses, cars—but watch out for the road blocks, nails on the road and hedgehogs.
Superb graphics, excellent sound and highly original.

Ratings: /10
Graphics: 8½
Sound: 7
Colour: 7
Originality: 9
Interest: 8
Order code: WHEEL

Wild West Hero

Machine: 48k
Joystick: Kempston
Category: Arcade
Publisher: Imagine

New Member £1.95 Special Price

Price: £5.95 **Club price: £4.45**

Our research has revealed 8 versions of the hit arcade game Robotron—this version by Paul Homes is far ahead of the competition. As a lone gun-slinger you must defeat the deadly outlaws who appear all around you. When they are all destroyed you progress to the next level—there being 40 in all. At each level more outlaws appear—making survival darn near impossible!

Ratings: /10
Graphics: 6
Sound: 8
Colour: 6
Originality: 6
Interest: 7
Order code: WWH

Zip Zap

Machine: 48k
Joystick: None
Category: Arcade
Publisher: Imagine

New Member £1.95 Special Price

Price: £5.50 **Club price: £4.15**

There is an unexplored planet only recently discovered in the Spectralia star system. A probe investigation records massive life readings, normal gravity and atmospheric conditions. This planet has been marked for immediate priority colonisation subject to clearance by robot team prelim-0484. As head of the prelim team you must survive as long as possible whilst meeting many alien forms around the planet. To jump to the next planet sector you must assemble all the fuel pads by the tele-portal.
Has to be one of the finest alien zaps available!

Ratings: /10
Graphics: 7
Sound: 7
Colour: 7
Originality: 5
Interest: 7
Order code: ZIPZA

Zzoom

Machine: 48k
Joystick: Fuller Kempston Protek AGF
Category: Arcade
Publisher: Imagine

New Member £2.75 Special Price

Price: £5.50 **Club price: £4.15**

Another mission is about to begin. As the commander of the ground skimmer you must intercept the enemy with its dreaded Exotron missile, whose aim is to destroy the helpless refugees on the ground. You possess one of the most advanced battle computers with short range scan, battle shields, dibar altitude and auto pilot. Zzoom offers some of the most sophisticated graphics ever seen on the Spectrum and will offer challenging play from the novice to the arcade expert.

Ratings: /10
Graphics: 9
Sound: 8
Colour: 8
Originality: 7
Interest: 6
Order code: ZZOOM

ARCADE ADVENTURE

Alchemist

Machine: 48k
Joystick: No
Category: Arcade/Adventure
Publisher: Imagine

New Member £3.45 Special Price

Price: £5.50 **Club price: £4.15**

Summoned to do battle against evil warlocks, you fight your way relentlessly onwards. Your defence is the spell of destruction, which is in four pieces for you to find.
Alchemist is different from classic adventures however as the game involves arcade action, rather than typing in text.
The graphics are excellent—you're chased by balls, brooms, butterflies and skulls—to name only a few. If you're fed up with ordinary games, Alchemist is the game for you.

Ratings: /10
Graphics: 9
Sound: 7
Colour: 7
Originality: 9
Interest: 9
Order code: ALCHE

Ant Attack

Machine: 48k
Joystick: No
Category: Arcade
Publisher: Quicksilva

New Member £4.75 Special Price

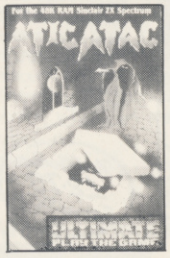
Price: £6.95 **Club price: £5.75**

Your childhood sweetheart has

been captured by the Giant Ants and taken to their city. You must enter the dreaded city and rescue her before the ants have their evil way. Your only aids are your stun grenades and a pair of very nimble legs.
Ant Attack uses a totally original special soft solid technique which gives the closest graphics to 3-dimensional gameplay ever achieved on the Spectrum and there's no need for special spectacles!

Ratings: /10
Graphics: 10 **Originality:** 10
Sound: 5 **Interest:** 9
Colour: 4 **Order code:** ANTAT

Atic Attack



Machine: 48k
Joystick: Kempston and most others—redefineable keys
Category: Arcade Adventrue
Publisher: Ultimate

New Member £3.50 Special Price

Price: £5.50 **Club price: £4.95**

During your quest for The Golden Key of ACG you become trapped in an evil haunted castle. As you wander around the castle's ancient rooms and passages you encounter Frankenstein, Dracula and the Devil himself! As you move from room to room you try to ward off the ghouls and pick up any items which may be of use later.
A fast moving 'graphics only' adventure.

Ratings: /10
Graphics: 7 **Originality:** 9
Sound: 6 **Interest:** 7
Colour: 7 **Order code:** ATIAT

Doomsday Castle

Machine: 48k
Joystick: Kempston Fuller Sinclair Cursor
Category: Arcade/Adventure
Publisher: Fantasy

New Member £3.95 Special Price

Price: £6.50 **Club price: £4.95**

Another high quality arcade adventure from Fantasy. You explore an enormous castle, consisting of no less than *255* labyrinths connected by 49 passages. Get to the corridors by blasting through the doors, whilst avoiding the extraordinary aliens. Recharge your lasers by shocking the aliens.
High quality graphics make this an original game of lasting interest.

Ratings: /10
Graphics: 7 **Originality:** 8
Sound: 7 **Interest:** 7
Colour: 7 **Order code:** DOOCA

Jet Set Willy

Machine: 48k
Joystick: Kempston AGF Protek Interface II
Category: Arcade
Publisher: Software Projects

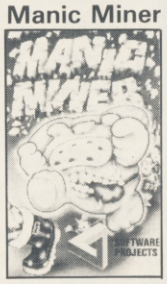
New Member £3.45 Special Price

Price: £5.95 **Club price: £4.55**

At last! The long awaited sequel to 'Manic Miner'. The saga continues... Miner Willy has gone from rags to riches. Guide Willy around his clifftop mansion, as he searches for all the bottles and glasses after a party, before his housemaid, Maria, will let him crash out in bed. Check the beach, down the road, and on the rooftop.
Over 70 screens, amazing graphics and humour add up to make this one of the best for the Spectrum.

Ratings: /10
Graphics: 8 **Originality:** 9
Sound: 7 **Interest:** 8
Colour: 7 **Order code:** JETSE

Manic Miner



Machine: 48k
Joystick: Kempston AGF Protek Interface II
Category: Arcade/Adventure
Publisher: Software Projects

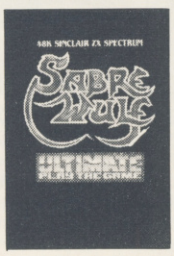
New Member £3.45 Special Price

Price: £5.95 **Club price: £4.55**

Willy the Miner has fallen down a disused mine shaft. He works his way through the various levels collecting keys and searching for secret treasure. Manic Miner is a classic arcade game for the Spectrum—There are 20 caverns to penetrate, each requiring its own bit of ingenuity to ensure success. A classic game that sets the standard others will be judged by.

Ratings: /10
Graphics: 8 **Originality:** 9
Sound: 7 **Interest:** 9
Colour: 9 **Order code:** MANSP

Sabre Wulf



Machine: 48k
Joystick: Kempston Cursor Sinclair Interface II
Category: Arcade/Adventure
Publisher: Ultimate

New Member £6.95 Special Price

Price: £9.95 **Club price: £8.45**

From the publishers of Spectrum classics such as Atic Atac and Lunar Jetman now comes SABRE WULF, an arcade/adventure epic set in the deepest jungle.
The deeper you explore, risking life and limb, the more challenges you face: hippos, rhinos, warthogs, tarantulas, bats and at least 30 other jungle meanies. The flora is wild and varied, some plants helpful and healing, others poisonous and deadly. No doubt about it—Ultimate's best Spectrum game yet, featuring 3D scenery multi-directional movement, amazing animation and the best sound effects on the Spectrum so far. A game that **no** Spectrum owner should be without.

Ratings: /10
Graphics: 10 **Originality:** 10
Sound: 10 **Interest:** 10
Colour: 10 **Order code:** SABWU

Scuba Dive

Machine: 48k
Joystick: Any—Redefineable Keys
Category: Arcade
Publisher: Durell Software

New Member £3.45 Special Price

Price: £5.95 **Club price: £4.55**

A beautifully fishy animation. Dive overboard, and explore the deep sea, collecting pearls—but mind that you don't get trapped. Watch out for white sharks, giant squids and the octopus. The deeper you dive the larger the pearls, but the more ferocious the marine life becomes.
Superb animation—an outstanding original game.

Ratings: /10
Graphics: 9 **Originality:** 10
Sound: 5 **Interest:** 8
Colour: 7 **Order code:** SCUSP

The Pyramid

Machine: 48k
Joystick: Fuller Kempston AGF Protek Microgen
Category: Arcade/Adventure
Publisher: Fantasy

New Member £2.95 Special Price

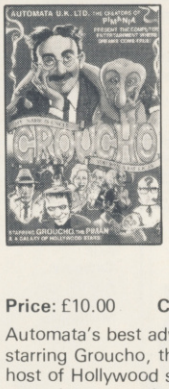
Price: £5.50 **Club price: £4.15**

Guide Ziggy, equipped with defence shield and phased plasmic laser, through the Pyramid, which consists of 120 chambers on 15 levels. Each chamber is inhabited by one of *60* varieties of weird creatures and aliens, ranging from galactic strawberries to demons and cosmic claws to mutant eyes. This arcade game will continue to amaze you for months, if not years!

Ratings: /10
Graphics: 7 **Originality:** 8
Sound: 4 **Interest:** 8
Colour: 7 **Order code:** THEPY

ADVENTURE

Groucho



Machine: 48k
Joystick: No
Category: Adventure
Publisher: Automata

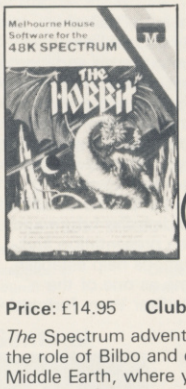
New Member £5.00 Special Price

Price: £10.00 **Club price: £7.50**

Automata's best adventure, starring Groucho, the Piman, and a host of Hollywood stars, here's your chance to win a trip to Hollywood and play a great adventure game. Uncle Groucho explores the U.S.A., (accompanied by the Piman) and you have to follow him, finding clues to the identity of a mystery Hollywood personality.
Intriguing stuff, highly addictive, an original adventure which is an absolute 'must' for all Piman fans.

Ratings: /10
Graphics: 5 **Originality:** 8
Sound: 5 **Interest:** 8
Colour: 5 **Order code:** GROUC

The Hobbit



Machine: 48k
Joystick: No
Category: Adventure
Publisher: Melbourne House

New Member £10.95 Special Price

Price: £14.95 **Club price: £12.95**

The Spectrum adventure. Take on the role of Bilbo and explore Middle Earth, where you will face danger and expect new challenges. Seek out the evil dragon and return the treasure he hoards. Excellent 3D graphics and amusing text. A 'must' for every self respecting adventurer. Lock the door of your computer room, 'The Hobbit' will keep you busy unravelling clues, for several weeks to come!

Ratings: /10
Graphics: 8 **Originality:** 9
Sound: n/a **Interest:** 10
Colour: 8 **Order code:** HOBSP

The Hulk

Machine: 48k
Joystick: No
Category: Adventure
Publisher: Adventure International

New Member £17.95 Special Price

Price: £9.95 **Club price: £8.45**

A real monster of a program. Featuring the Hulk and all his evil enemies, this adventure has a stunning graphic 'window' which has superb animation. Bruce Banner has set out on a long adventure, but his life is hindered by Ultron, Nightmare and a host of other meanies, with awesome powers. Your quest is to unlock the riddle of the chief examiner and to survive.
The first of a new series of graphic's adventures from Scott Adam's Adventure International—highly recommended.

Ratings: /10

Graphics: 9 **Originality:** 10
Sound: N/A **Interest:** 9
Colour: 9 **Order code:** HULS

The Lords of Midnight

Machine: 48k
Joystick: No
Category: Adventure
Publisher: Beyond

New Member £17.95 Special Price

Price: £9.95 **Club price: £8.95**

An epic graphics adventure. You control the actions of 4 characters: Luxor, Markin, Corleth and Rorthron and guide them across the land of Midnight on certain vital quests.
But all the time you must endeavour to hold back the foul hordes of Doomdark.
Excellent atmosphere, great plot, and a unique 'landscaping language' allows the program to create no less than 32,000 different panoramic views!

Ratings: /10

Graphics: 10 **Originality:** 10
Sound: N/A **Interest:** 10
Colour: 9 **Order code:** LOM

Pimania

Machine: 48k
Joystick: No
Category: Adventure
Publisher: Automata

New Member £15.00 Special Price

Price: £10.00 **Club price: £7.50**

A cult adventure from Automata that will keep you busy for months? No, probably years. Featuring the Pi-Man and some very high quality, amusing graphics too (also a free hit single and a chance to win £6,000).

Ratings: /10

Graphics: 7 **Originality:** 8
Sound: 4 **Interest:** 6
Colour: 4 **Order code:** PIMAN

Valhalla

Machine: 48k
Joystick: No
Category: Adventure
Publisher: Legend

New Member £10.95 Special Price

Price: £14.95 **Club price: £12.95**

A really top rate adventure with superb graphics. The background scenery is highly detailed, and the animation of the characters is very good. You see the characters execute your commands.
There are six quests in this adventure—enough to keep any adventurer occupied for several months. A Spectrum 'classic'.

Ratings: /10

Graphics: 9 **Originality:** 10
Sound: 6 **Interest:** 10
Colour: 7 **Order code:** VALHA

EDUCATIONAL

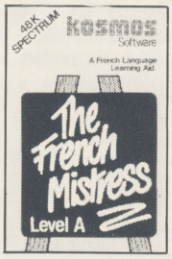
Englishskills I
Englishskills II

Price: £9.95 each **Club price: £8.45** each

Two packages that are an excellent example of how a microcomputer can be used to assist the acquisition of language skills. Englishskills I includes four programs: 'Meanings', 'Speech', 'Proverbs' and 'Similes'. Englishskills II contains four more programs: 'Metaphors', 'Opposites', 'Group Terms' and 'Odd Man Out'.
Two very useful packages suitable for children aged from 10 to 15.simulations for the Spectrum.

Order code: Englishskills I ENGL1
Englishskills II ENGL2

French Mistress, A + B



Machine: ZX Spectrum
Joystick: No
Category: Educational
Publisher: Kosmos

Price: £9.95 each level **Club price: £7.45**

A complete 'O' level revision in two stages. Tape A deals with general vocabulary and essential grammar. Tape B, then goes on to more specialised vocabulary and further grammar.
Each tape is available separately, but tape B cannot be used without tape A.

Mathskills I
Mathskills II

Price: £9.95 each **Club price: £8.45** each

Topics covered in Mathskills I are: long multiplication, long division, highest common factor, lowest common multiple, and the addition, subtraction, multiplication and division of fractions. Mathskills II covers: areas and perimeters, set theory and Venn diagrams. Between them these two packages cover important sections of almost every GCE 'O' level or CSE syllabus. All programs have a special 'help key' if the going gets really tough.

Order code: Mathskills I MATH1
Mathskills II MATH2

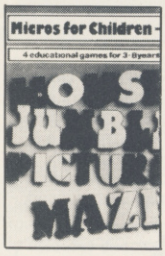
Maths Invaders

Machine: 16/48k
Age range: 4-12 years
Category: Education
Publisher: Stell

Price: £6.95 **Club price: £5.25**

Maths Invaders provides excellent motivation to learn simple arithmetic. Subjects covered are addition, subtraction, multiplication and division. The invaders are coming down the screen towards you. Load your gun with the right answer to their question and fire it at them before they land on you. Superb graphics and sound plus a range of difficulty levels to suit any age, make this a favourite with every child.

Micros for Children

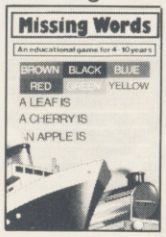


Machine: 16/48k
Age range: 3-8 years
Category: Education
Publisher: Stell

Price: £6.95 **Club price: £5.25**

This set of four educational games provides excellent value for money
House—a series of different objects are displayed on the screen (TV, bed, etc.) You must decide in which room each object belongs, and move it there.
Jumble—guess which word is in each balloon. Watch it fill with colour when you type in the right answer. You can also add your own words and save them.
Picture—can you identify the picture? Watch it move across the screen when you guess the right answer.
Maze—find your way through the maze and reach the dog—7 levels.

Missing Words



Machine: 48k
Age range: 4-10 years
Category: Education
Publisher: Stell

Price: £6.95 **Club price: £5.25**

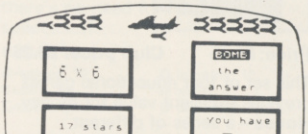
Two entertaining sections teach reading and English comprehension.
Section one displays single sentences with a word missing in each. The child must choose the correct word to fill the gap, from a choice of six words. Only two keys are used in this section, making it simple for even the youngest child.
Section two takes this theme one stage further. Now a full story is displayed on the screen with at least ten missing words in it. The child must decide which word should be used to fill in the gap, and type this in.
In both sections, a large number of different sentences and stories can be selected. Section two even allows you to type in your own story—e.g. your child's favourite nursery rhyme.

Tablesums

Machine: 48k
Age range: 6 year upwards
Publisher: Griffin Software

Price: £7.99 **Club price: £6.45**

Now that it has become unfashionable for schools to teach 'times' tables by rote, many parents find poor multiplication skills can delay a child's mathematical development. Griffin Software's 'Tablesums' offers a novel and exciting way out of this difficulty. Using the format of a colourful computer game, one particular multiplication table, or a mixture of tables can be practised.



These are shown on the screen and the answers are then selected by the user in a novel and exciting way. Rewards for correct answers and reinforcement for mistakes are similar to 'Numberfun'.
The package includes two versions of 'Tablesums' which with their exciting and colourful displays are an excellent example of the use of microcomputers to aid learning.

Time

Machine: 48k
Age range: 3-10 years
Category: Education
Publisher: Stell

Price: £6.95 **Club price: £5.25**

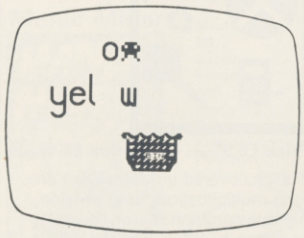
This 3-part program is ideal for any child who is ready to learn to tell the time. The instructions are very clear, the letters are large and the clock face is big and clear (and friendly!)
Part one is LEARNING THE HOURS and there are three parts to this section. Watch the mouse run up the clock when you complete each section.
Part two is about LEARNING THE MINUTES and again there are three parts to this section.
Part three is about DIGITAL TIME.

Wordgames

Machine: 48k
Age range: 6 year upwards
Publisher: Griffin Software

Price: £7.99 **Club price: £6.45**

'Wordgames' has two programs using friendly 'space invaders' to help sort out mistakes. A built-in dictionary of over 800 words is used in the tests or your own word lists can be added.



The first program, 'Wordguess,' helps to teach spelling by means of a word guessing game with various clues offered along the way.
The second program, 'Anagrams,' generates a series of anagrams for the user to solve. Various levels of difficulty can be chosen.

PROGRAMMING TUTORIAL

LOGIC 3 "Learn BASIC"

Machine: 16/48k
Joystick: n/a
Category: Programming
Publisher: Logic 3

Price: £14.95 **Club price: £12.95**

This is what existing owners of 'Learn Basic' have said about the product:

"I am very pleased with the first part of the course... which I can thorougly recommend to anybody."
L.A. Ward, Chartered Accountant —Inverness

"Even with the critical eye of a retired publication officer I am impressed with standards of contents, layout and illustration of 'Learn Basic'..."
M.W.G. Trowler—Essex

"...would like to say how impressed I was by the straightforward explanation of the methods and I would now like to purchase 'Advanced Basic'..."
B.A. Knight—Berkshire

"We both tried your course and were delighted with all aspects thereof, truly, something like this is badly needed for the Spectrum."
Mr & Mrs Rapp—Australia

Order code: LBSPEC

Both programs use excellent, easy-to-read characters.

Wordspell

Machine: 48k
Age range: 5 years upwards
Publisher: Griffin Software

Price: £7.99 **Club price: £6.45**

'Wordspell' is one of the most powerful spelling practise programs available with 116 separate word tests and a dictionary of over 800 words built in. A facility is also available for parents or teachers to add their own word lists chosen from books currently being read making the program specific to any child's need. Wordspell provides a comprehensive introduction to the key rules of English spelling. Fun 'space invaders' help sort out any mistakes and the program uses colour to show different kinds of spelling correction.

Order code: WORDS

SIMULATION

Air Traffic Control

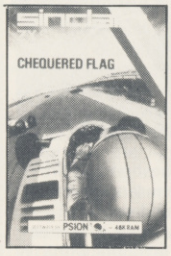
Machine: 48k
Joystick: No
Category: Simulation
Publisher: Mikro Gen

Price: £9.95 **Club price: £8.45**

A break with the traditional racing driver/aircraft pilot simulations "Air Traffic Control" puts you in the hot seat controlling the Hurn sector of London Air Traffic Control—West Drayton. Your job as Air Traffic Controller is to ensure a safe and expeditious flow of air-traffic; safe in that all aircraft must be kept apart, and expeditious so as to avoid undue delay. The work of an air traffic controller is very skilled and demanding, they each undergo about 3 years basic training. It is not surprising, therefore, that it may take some time to master the many tasks involved in this very realistic simulation.

Ratings: /10
Graphics: 9 **Originality:** 10
Sound: N/A **Interest:** 9
Colour: 8 **Order code:** ATC

Chequered Flag



Machine: 48k
Joystick: None
Category: Simulation
Publisher: Psion/Sinclair

New Member £4.45 Special Price

Price: £6.95 **Club price: £5.45**

The most sophisticated motor racing simulation available for the Spectrum. Choose from ten tracks including Monaco, Brands Hatch and Silverstone and from three cars, one automatic and 2 with manual gearchange. Instruments include speedo, rev counter and fuel gauges. As you drive around the 3D track you can see the nose of your car, the wheels and steering wheel turning, and the road ahead.
Very impressive 3D graphics, if you enjoy 3D simulations, you must add Chequered Flag to your collection.

Ratings: /10
Graphics: 9 **Originality:** 9
Sound: 5 **Interest:** 10
Colour: 6 **Order code:** CHEFL

Dartz

Machine: 48k
Joystick: No
Category: Simulation
Publisher: Automata

Price: £5.00 **Club price: £4.00**

At last—a good simulation of darts for your home computer. Aim carefully at the board but take into account the number of pints you've had tonight, and the crowd which can put you off your stroke. Superb graphics and Automata's original sense of humour make this a really enjoyable simulation. The only thing that is missing is the smell of cigarette smoke and beer.

Ratings: /10
Graphics: 9 **Originality:** 8
Sound: 7 **Interest:** 8
Colour: 7 **Order code:** DARTZ

Deathchas

Price: £6.95

Superb 3D grap
years after the
North American
by mighty warlo
conflict. You ar
mercenaries, ric
through the for
to get rich and
die! You patrol
night, chasing
destroying them
Worth getting
simulation alon

Ratings: /10
Graphics: 9
Sound: 7
Colour: 7

Fighter Pilo

Price: £7.95

Fighter Pilot is a
simulation based
fighter. This bre
simulation offers
cockpit, fully ae
performance, ai
crosswinds, turb
The program als
modes and a pil
varying difficulty
you really will le
flying a plane fr
program. One o
simulations for

Ratings: /10
Graphics: 8
Sound: None
Colour: 7

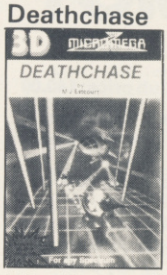
UTI

The Games

Price: £14.95

Do you have gre
game, but are u

Deathchase



Machine: 16/48k
Joystick: Kempston
Category: Arcade
Publisher: MicroMega

New Member £4.45 Special Price

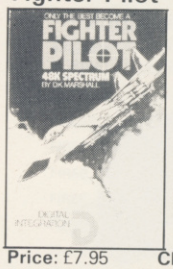
Price: £6.95 **Club price: £5.45**

Superb 3D graphics! It is 2501, 100 years after the Great War. The North American continent is ruled by mighty warlords in constant conflict. You are one of the elite mercenaries, riding your bike through the forest. It's a quick way to get rich and a quicker way to die! You patrol the forest day and night, chasing enemy riders and destroying them.
Worth getting for the exciting 3D simulation alone!

Ratings: /10

Graphics: 9
Sound: 7
Colour: 7
Originality: 9
Interest: 10
Order code: DEATH

Fighter Pilot



Machine: 48k
Joystick: No
Category: Simulation
Publisher: Digital Integration

New Member £5.95 Special Price

Price: £7.95 **Club price: £6.95**

Fighter Pilot is a real time flight simulation based on a USAF jet fighter. This breath-taking simulation offers 30 views from the cockpit, fully aerobatic performance, air to air combat, crosswinds, turbulence and more. The program also offers training modes and a pilot skill rating for varying difficulty. Very realistic — you really will learn a lot about flying a plane from this superb program. One of the best simulations for the Spectrum.

Ratings: /10

Graphics: 8
Sound: None
Colour: 7
Originality: 8
Interest: 10
Order code: FIGPI

Full Throttle

Machine: 48k
Joystick: Kempston Cursor Interface
Category: Simulation
Publisher: MicroMega

New Member £4.45 Special Price

Price: £6.95 **Club price: £5.45**

If you have played DEATHCHASE then you will have longed to take your bike out of the forest onto the smooth tarmac of the race track. Now is your chance. You can choose any one of world's top 10 tracks. But with 40 other riders pitted against you, the hazards of the DEATHCHASE forest seem tame in comparison. Excellent.

Ratings: /10

Graphics: 9
Sound: 7
Colour: 7
Originality: 9
Interest: 10
Order code: FULTH

Pool

Machine: ZX Spectrum, 16/48k
Joystick: No
Category: Simulation
Publisher: CDS Micro Systems

New Member £3.45 Special Price

Price: £5.95 **Club price: £4.45**

A really excellent simulation of the game of Pool using the full sound and colour graphics capabilities of the Spectrum to bring the action and excitement of the real game into your home. Use your skill and judgement, and play like the professionals. 1 or 2 player game and demo mode. The *only* pool game worth considering for your 16 or 48k Spectrum.

Ratings: /10

Graphics: 8
Sound: 8
Colour: 8
Originality: 9
Interest: 10
Order code: POOL

STRATEGY

Codename Mat

Machine: 48k
Joystick: Kempston Protek AGF Interface II
Category: Strategy/Arcade
Publisher: Micromega

New Member £4.90 Special Price

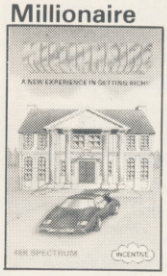
Price: £6.90 **Club price: £5.90**

A superb blend of the arcade game, 'Star Raiders' and the strategy game 'Star Trek'. 'Mat' (you and the computer working as a team) must defend the planets of the Solar System against the marauding Mylons. Available to you are: warp drive, defence shields, two computers, subspace transmitters, front and rear view, long range scan, sector scan, ship status report and solar dust! The 3D graphics are superb. Incredibly addictive as an arcade game, mind-stretching as a strategy game. This is a game you will play again and again.

Ratings: /10

Graphics: 8
Sound: 6
Colour: 8
Originality: 9
Interest: 9
Order code: CODMA

Millionaire



Machine: 48k
Joystick: No
Category: Strategy/ Business Simulation
Publisher: Incentive

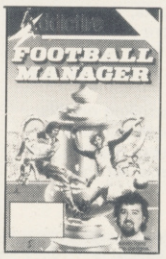
Price: £5.50 **Club price: £4.50**

The software business is booming and you have written a program which you hope will make you a millionaire. You must decide how to spend on advertising, duplication, or whether you need a loan of up to £1000. Can you withstand the rigours of cut-throat competition. An interesting simulation of the software business with good graphical representation of earnings, profits/losses, etc.

Ratings: /10

Graphics: 8
Sound: 7
Colour: 7
Originality: 10
Interest: 8
Order code: MILLI

Football Manager



Machine: 48k
Joystick: N/A
Category: Strategy
Publisher: Addictive Software

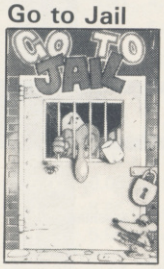
Price: £6.95 **Club price: £5.45**

A 'must' for football enthusiasts! Learn to select your team and cope with injured players, then watch in nail-biting anticipation as a match is played without your intervention! If you've chosen your team skilfully you could win the match and move up the league, or progress a stage towards winning the F.A Cup. As in real-life, success breeds success. Your gate receipts climb and you have more money to spend on new and better players. You start at the bottom of the fourth division and once you reach the top of the first you've proved your skill as a football manager. Then you go on to the next level...

Ratings: /10

Graphics: 8
Sound: n/a
Colour: 5
Originality: 10
Interest: 10
Order code: FOOMA

Go to Jail



Machine: 48k
Joystick: No
Category: Strategy
Publisher: Automata UK

New Member £4.00 Special Price

Price: £6.00 **Club price: £5.00**

An excellent rendering of the property trading board game, Monopoly, with the added feature of playing against the computer, as well as other people. The computer throws dice, moves pieces and by dealing with mortgages, etc. plays banker.
This game must be seen to be believed!!

Ratings: /10

Graphics: 10
Sound:
Colour: 9
Originality: 10
Interest: 9
Order code: GOTOJ

Mugsy

Machine: 48k
Joystick: No
Category: Strategy
Publisher: Melbourne House

New Member £4.95 Special Price

Price: £6.95 **Club price: £5.95**

From the publishers of the top selling adventure—The Hobbit—comes their newest release, MUGSY.
As Mugsy, you must organise your gang and their dealings—such as protection rackets and the purchase of weapons and ammunition, and most important of all make sure that your gang stays on top.
Muscle in on the action!

Ratings: /10

Graphics: 9
Sound: 9
Colour: 8
Originality: 10
Interest: 9
Order code: MUGSY

UTILITY

The Games Designer

Machine: 48k
Joystick: No
Category: Utility
Publisher: Quicksilva

Price: £14.95 **Club price: £12.95**

Do you have great ideas for a new game, but are unsure of your programming skills? Well then, this program is for you! No advanced programming techniques are required, and, with the comprehensive instructions you could be writing high quality games, incorporating hi-res graphics, sound, scoring, etc., within a few hours instead of the usual months.
Also included are 4 free high quality games for you to experiment with.

Ratings: /10

Graphics: n/a
Sound: n/a
Colour: n/a
Originality: 9
Interest: 9
Order code: GAMDE

HARDWARE

DK'tronics ZX Keyboard

Price: £45.00 **Club price: £40.00**

Make your ZX81 or ZX Spectrum easier to use. This typewriter style keyboard will hold your ZX microcomputer and power supply in a neat professional unit. The keys have identical symbols to your ZX microcomputer but in addition there is a separate 12 key pad consisting of the numbers 0-9, full stop and shift keys. This is much quicker to use when entering a lot of numerical data.
No soldering is required and full instructions for fitting the keyboard are supplied. All connections are taken to the rear of the keyboard case, i.e. power, Mic, Ear, TV and expansion port.

Please Note
Your Micro's 12 month free of charge guarantee and £20 repair charge is invalid unless it is returned fitted into its normal case as originally supplied.

MISC

Antics

Machine: 48k
Joystick: No
Category: Arcade/Maze
Publisher: Bug Byte

Price: £6.95 **Club price: £5.55**

Boris Bee has been kidnapped by a vicious gang of ants. Help, however, is at hand, as you launch a daring rescue mission to find him and to secure his life.
A cartoon style maze game as you penetrate the labrynth of ants' nests—can you get Boris back to his hive, or will you perish underground?

Ratings: /10

Graphics: 7	**Originality:** 7
Sound: 8	**Interest:** 8
Colour: 6	**Order code:** ANTIC

Psytron

Machine: 48k
Joystick: Kempston
Category: Arcade/Strategy
Publisher: Beyond

Price: £7.95 **Club price: £6.45**

Less than human, far more than mere computer, the PSYTRON controls the massive Betula 5 complex. The Psytron has to be prepared to defend the planet against sudden attack.
Your mission is to survive the attackers until the final conflict. Ten screens of amazing animation, six levels of play and a comprehensive manual makes this an enormous games package.
A demanding game you will want to play again and again.

Ratings: /10

Graphics: 9	**Originality:** 9
Sound: 7	**Interest:** 9
Colour: 9	**Order code:** PSYTR

Tornado Low Level

Machine: 48k
Joystick: Sinclair Interface II
Category: Arcade/Simulation
Publisher: Vortex

Price: £5.95 **Club price: £4.50**

Just released by Vortex, another high quality 3D arcade game. Take off in your Tornado—accelerate, once in the air, swing the wings back and you're away. Your mission is to seek and destroy the enemy targets shown on your map. In reaching the targets, the lower you dare fly the more points you will gain. You may land to refuel and return to base, in order to fly a new mission.
The graphics and scrolling on this game are very smooth and the scenery is 3D and very realistic. An excellent 'flying game' for the Spectrum.

Ratings: /10

Graphics: 9	**Originality:** 9
Sound: 7	**Interest:** 9
Colour: 7	**Order code:** TLL

Competition-Pro Joystick

Machine: 16/48k
Manufacturer: Kempston

Price: £13.50 **Club price: £11.50**

The joystick for the Spectrum. Top of the Kempston range, it features two arcade style video fire buttons for right or left hand control. No true arcade fan should be without one. (Requires an interface.)

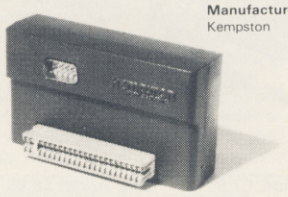
Light Pen

Price: £17.35 **Club price: £15.95**

This pen enables you to produce high resolution drawings directly on your Spectrum's TV/Monitor. You simply draw the shape you require on the screen, saving yourself a vast amount of time, compared with using BASIC statements such as DRAW, PLOT, etc. You can erase, modify and save the screen drawings on cassette. Alternatively, use the light pen to select functions or answers in CAL programs. The pen is supplied with controlling software on cassette and instructions.

Kempston Joystick Interface

Machine: 16/48k
Manufacturer: Kempston



Price: £11.50 **Club price: £9.95**

Converts your Spectrum to accept most joysticks including the Competition-Pro and Quickshot II featured here.

Quickshot II De-Luxe Joystick

Machine: 16/48k
Manufacturer: Spectravideo

Price: £12.95 **Club price: £10.95**

Used with an interface, this joystick is suitable for the Spectrum. It has trigger and top fire buttons, an auto fire switch to lock the shooting mechanism, and built in suction feet to make single handed action possible.

ORDER FORM

HOW TO ORDER: Put a tick alongside the Product(s) you wish to order and enter the price you are paying in the appropriate box. If you are applying to join the Logic 3 Spectrum Club (and you post this order before 14th November 1984) you may take up to five titles at the "New Member" special price, and as many titles as you wish at the "Club" price. If you apply after 14 November 1984 you may take any number of titles at club price, but none at the "New Member" price. If you do not wish to join the Logic 3 Spectrum Club you may purchase any number of titles at the retail price.

Code	Tick	Title	New Member Price	Price	Club Price	Enter Price
3DTAN	☐	3D Tank	2.75	4.95	3.75	
ADAST	☐	Ad Astra		5.95	4.45	
ALCHE	☐	Alchemist	3.45	5.50	4.15	
ANTAT	☐	Ant Attack	4.75	6.95	5.75	
ANTIC	☐	Antics		6.95	5.55	
ARCSP	☐	Arcadia	1.95	5.50	4.15	
ATC	☐	Air Traffic Control		9.95	8.45	
ATIAT	☐	Atic Attack	3.50	5.50	4.95	
AVENG	☐	Avenger	1.95	5.95	4.45	
BEAKY	☐	Beaky and the Eggsnatchers		5.50	4.50	
BLAAL	☐	Blade Alley		5.95	4.75	
BLUTH	☐	Blue Thunder		5.95	4.25	
BUGAB	☐	Bugaboo	3.55	6.95	5.25	
CAVER	☐	Cavern Fighter		5.95	4.25	
CHEFL	☐	Chequered Flag	4.45	6.95	5.45	
CODMA	☐	Codename Mat	4.90	6.90	5.90	
COOKI	☐	Cookie	2.75	5.50	4.15	
DARTZ	☐	Dartz		5.00	4.00	
DEATH	☐	Deathchase	4.45	6.95	5.45	
DKKEY	☐	DK' Troniks Keyboard		45.00	40.00	
DOOCA	☐	Doomsday Castle	3.95	6.50	4.95	
ENGL1	☐	Englishskills 1		9.95	8.45	
ENGL2	☐	Englishskills 2		9.95	8.45	
ESKED	☐	Eskimo Eddie		5.90	4.45	
EXTER	☐	Exterminator	1.95	5.95	4.45	
FACBR	☐	Factory Breakout		5.95	4.75	
FIGPI	☐	Fighter Pilot	5.95	7.95	6.95	
FIREB	☐	Firebirds	2.95	5.95	4.45	
FIREF	☐	Fireflash	1.95	5.95	4.45	
FOOMA	☐	Football Manager		6.95	5.45	
FRENA	☐	French Mistress A		9.95	7.45	
FRENB	☐	French Mistress B		9.95	7.45	
FULTH	☐	Full Throttle	4.45	6.95	5.45	
GALWA	☐	Galactic Warriors	1.95	5.95	4.45	
GAMDE	☐	Games Designer		14.95	12.95	
GOTOJ	☐	Go To Jail	4.00	6.00	5.00	
GROUC	☐	Groucho	5.00	10.00	7.50	
HARSP	☐	Harrier Attack	3.45	5.95	4.45	
HOBSP	☐	The Hobbit	10.95	14.95	12.95	
HULSP	☐	Hulk	7.95	9.95	8.45	
HUNSP	☐	Hunchback	4.45	6.95	5.45	
INTER	☐	Kempston Joystick Interface		11.50	9.95	
JETPA	☐	Jetpac	2.75	5.50	4.15	
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JOYST	☐	Competition-Pro Joystick		13.50	11.50	
JTB	☐	Jack and the Beanstalk		5.95	4.50	

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LOM	☐	Lords of Midnight	7.95	9.95	8.95	
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MANSP	☐	Manic Miner	3.45	5.95	4.55	
MATH1	☐	Mathskills I		9.95	8.45	
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MISWO	☐	Missing Words		6.95	5.25	
MMTB	☐	Morris Meets the Bikers		6.00	4.00	
MOOAL	☐	Moon Alert		5.95	3.95	
MRWSP	☐	Mr Wimpy	3.45	5.90	4.45	
MUGSY	☐	Mugsy	4.95	6.95	5.95	
MUNME	☐	Munnery's Mergatroids	1.95	5.95	4.45	
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PENET	☐	Penetrator	3.45	6.95	5.20	
PIBAL	☐	Piballed	4.00	6.00	4.50	
PIEYE	☐	Pi-Eyed	3.45	6.90	5.20	
PIMAN	☐	Pimania	5.00	10.00	7.50	
POOL	☐	Pool	3.45	5.95	4.45	
PROTE	☐	Proteus	1.95	5.95	4.45	
PSST	☐	Psst	1.95	5.50	4.15	
PSYTR	☐	Psytron		7.95	6.45	
QUICK	☐	Quickshot II De-Luxe Joystick		12.95	10.95	
SABWU	☐	Sabre Wulf	6.95	9.95	8.45	
SCUSP	☐	Scuba Dive	3.45	5.95	4.55	
SENTI	☐	Sentinel	1.95	5.95	4.45	
SPECT	☐	Spectron	1.95	5.95	4.45	
TABLE	☐	Tablesums		7.99	6.45	
THEPY	☐	The Pyramid	2.95	5.50	4.15	
TIME	☐	Time		6.95	5.25	
TIMEG	☐	Timegate	3.55	6.95	5.55	
TLL	☐	Tornado Low Level		5.95	4.50	
TRAAM	☐	Trans Am	2.95	5.50	4.15	
TRASH	☐	Trashman		5.95	4.45	
VALHA	☐	Valhalla	10.95	14.95	12.95	
WHEEL	☐	Wheelie		5.95	4.45	
WORDG	☐	Wordgames		7.99	6.45	
WORDS	☐	Wordspell		7.99	6.45	
WWH	☐	Wild West Hero	1.95	5.95	4.45	
ZIPZA	☐	Zip Zap	1.95	5.50	4.15	
ZZOOM	☐	Zzoom	2.75	5.50	4.15	

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Either: I enclose a cheque/Postal order no. _____ payable to Logic 3 Ltd.

or: Please charge my Access/Barclaycard

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Europe	£2.00
USA & Middle East	£3.00
Australia, Far East & Africa	£5.00

Post this order to: (Please allow up to 21 days for delivery)

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A B C

TEACH YOURSELF COMPUTER PROGRAMMING

Logic 3's "Learn BASIC Programming" tutorials have been widely accepted as the most easy-to-use, educationally sound introduction to computer programming for beginners.

22,000 LEARN BASIC the LOGIC 3 way

The excellent reviews and enthusiastic retail reception given to Logic 3's BASIC tutorials—'Learn BASIC' have been proved justified as over 22,000 of the existing tutorials (for the Sinclair Spectrum and Dragon microcomputer) have been sold to date.

"Learn BASIC" is the latest and most developed application of the famous "Strathclyde Method" originally devised by Professor Andrew Colin of the Department of Computer Science at Strathclyde University.

The "Strathclyde Method" comprises a 192 page workbook laid out in classic step-by-step text book fashion without the failing, common to so many computer books, of trying to get the pupil to run before he has learned to walk. What is *different* about the method is the way in which the computer itself is used to complement the printed material. At the end of each chapter the pupil is asked to load a quiz program into the computer. If the results of the test indicate that all the previous material has been understood then the pupil is asked to proceed to the next chapter. If the pupil has not grasped a particular topic then the quiz program asks the pupil to read again the appropriate section in the previous chapter. As well as the test programs, the two tapes which are included with the workbook, also contain many sample programs based on the material covered in each chapter.

Logic 3 have just released versions of the tutorial for the BBC Microcomputer and Acorn Electron, and a version for the Commodore 64 is to be launched shortly.

LOGIC 3-the key to the world of tomorrow

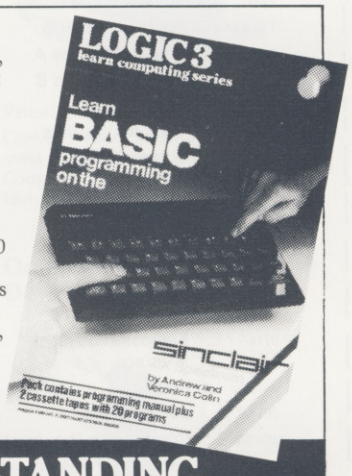
Logic 3 was formed by 4 people with extensive experience of the microcomputer industry who were convinced that a viable market existed for quality home computer software with educational and intellectual value.

Logic 3 commenced operations in July 1983 and had its first products on sale in November the same year. Its "Learn BASIC" programming tutorials are now available in some of the largest retailers of home computers in the UK, including W H Smiths, Boots, John Menzies, Lasky's, Woolworths and Greens.

Logic 3 is also a major distributor of 3rd party software. The company stocks an extensive range of games and educational software which is distributed to some 400 dealers.

To succeed in tomorrow's world, you must understand computers—at school, at work, as a parent. But there's no need to worry. Learning computer programming is easy—if you are taught in the right way.

'Learn BASIC' from Logic 3 teaches you programming by the world famous Strathclyde Method, already used successfully by 300,000 students. Written by Andrew and Veronica Colin 'Learn BASIC' deals with all the Spectrum's powerful features in a friendly, easy to follow, step by step manner, and is, quite simply, the best programming tutorial you can buy. For all ages from 8 to 80.



UNDERSTANDING COMPUTERS – THE KEY TO SUCCESS.

'Learn BASIC' is normally £14.95. Logic 3 Spectrum Club members may take advantage of our special club discounts. See order form on reverse for details.

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All products supplied by Logic 3 are guaranteed. Should any product supplied by Logic 3 prove faulty, please return it with a note explaining what was wrong and we will replace it at no charge.

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Signed_____

Name_____

Address_____

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_____ Tel: _____

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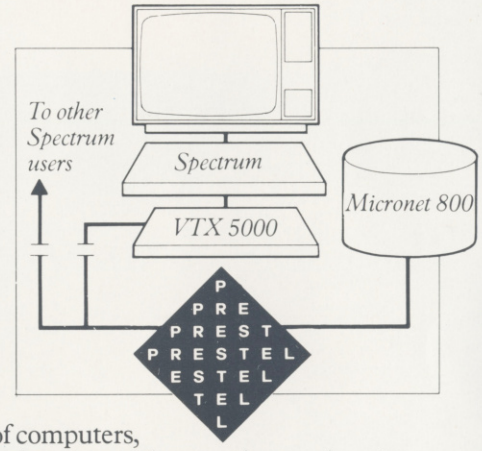
The Prism VTX 5000 has been specifically designed for use with either the 16K or 48K Spectrum, and turns the micro into one of the most cost effective intelligent videotext terminals on the market.

The VTX 5000 fits neatly under your Spectrum and enables you to access a range of viewdata systems such as Prestel and the fast expanding Micronet 800 service.

Connection to Micronet 800 and Prestel gives you access to a huge database of information, many software programs, and communication with other users.

Micronet 800 is fun, friendly and inexpensive to run. You can choose from dozens of *free* games, download and use them on your Spectrum whenever you like. There's also a range of downloadable software you can buy for less than over-the-counter prices.



And if you need fast facts about the world of computers, Micronet 800 provides constantly up-dated product comparison, reviews, prices and "best-buy" information.

You can also keep in touch, sending electronic mail to any other Micronet 800 or Prestel user via the Mailbox system.

The full range of Prestel services is also accessible. These include a comprehensive information service offering you up-to-date news, weather and many other topics of immediate interest.

Prestel also has a travel information and booking service which is widely used throughout the travel industry. Prestel is expanding fast, and new, improved services are constantly being developed.

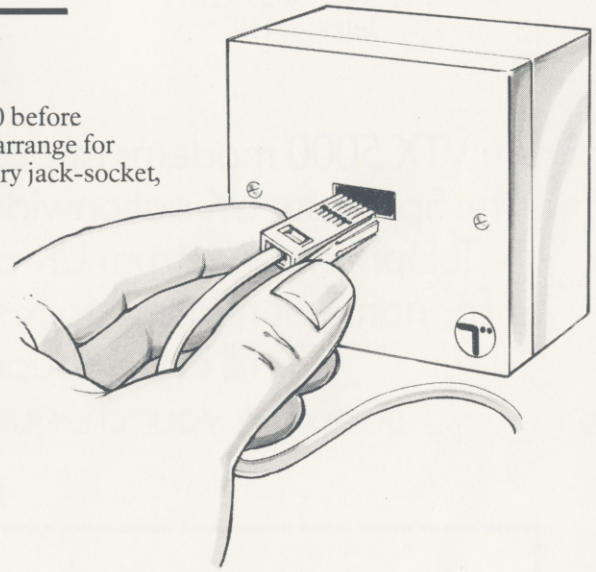
To access these, and other services, the Prism VTX 5000 offers direct connection via the telephone line. The modem is equipped with the new British Telecom PST jack-plug for connection to the telephone line. If you don't already have the necessary jack-socket, British Telecom will install an extension jack-socket for you at a cost of approximately £28.

FREE JACK-SOCKET

If, however, you join Micronet 800 before January 31st 1984, Micronet 800 will arrange for British Telecom to install the necessary jack-socket, completely free of charge.

If your telephone is connected via any other type of equipment, such as Key and Lamp unit, Herald or Private Exchange, please ask your local telephone area sales office for advice as a jack-socket installation may incur additional costs which are not included in the Micronet 800 free socket offer.

The VTX 5000 also affers the convenience of on-board terminal software contained in ROM – so no need to load from cassette.



At a cost of £99.95 fully inclusive of VAT and postage and packing, the Prism VTX 5000 offers you access to a whole world of information and communications, and, combined with the Sinclair Spectrum forms an intelligent viewdata system at a fraction of the cost of many other such systems.

Features of Prism VTX 5000 Software

- Log on or off to Prestel, Micronet 800 and other private viewdata systems.
- Save frames on cassette.
- View frames from cassette.
- Print frames on the ZX Printer exactly as displayed on the screen, including mosaic graphics.
- Telesoftware downloading of programs from Micronet 800 to your Sinclair ZX Spectrum.
- Off-line preparation of "Mailbox" messages which can be stored on cassette for later use.

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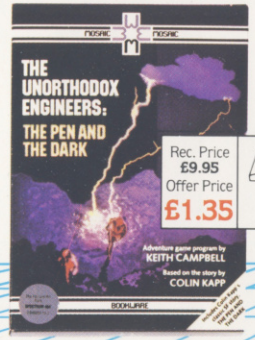

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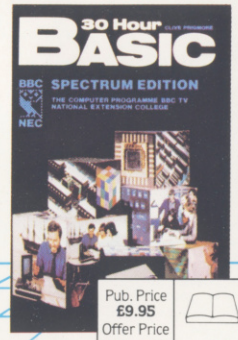

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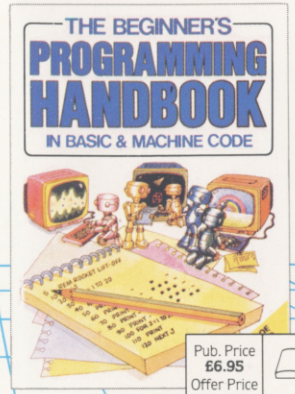

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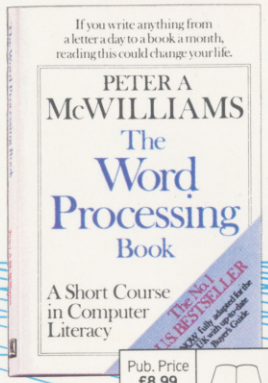
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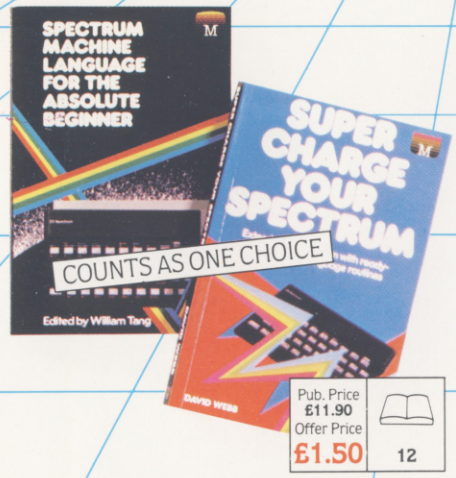

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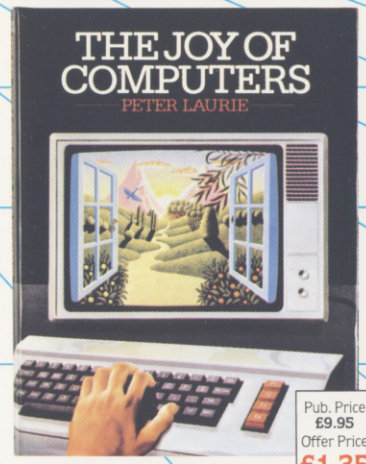

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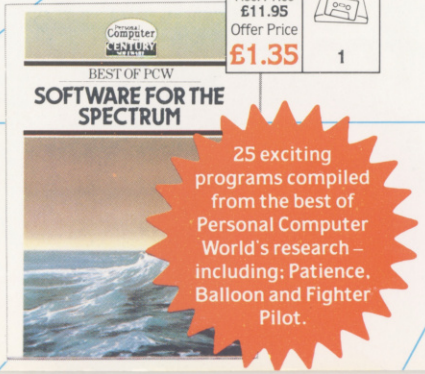

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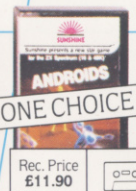

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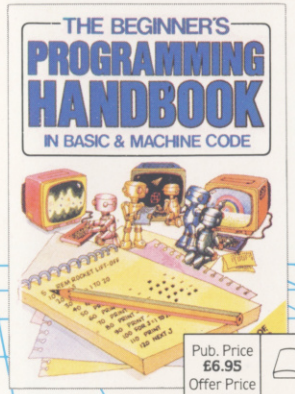

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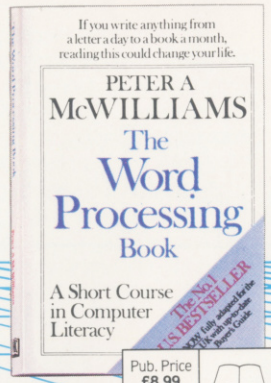
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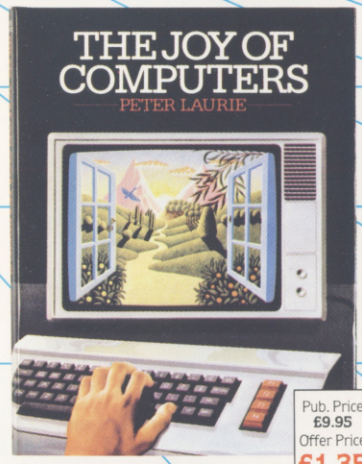

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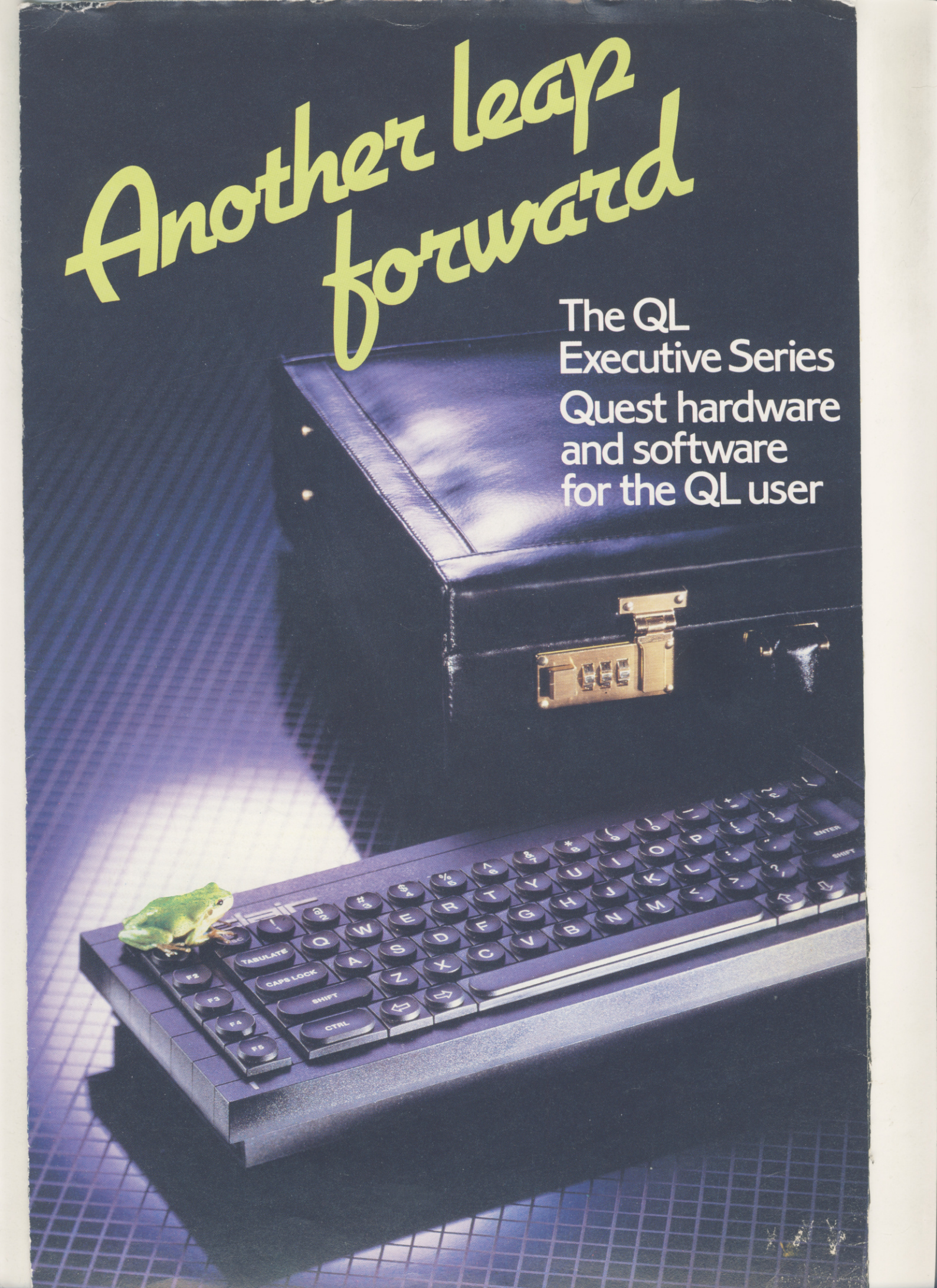
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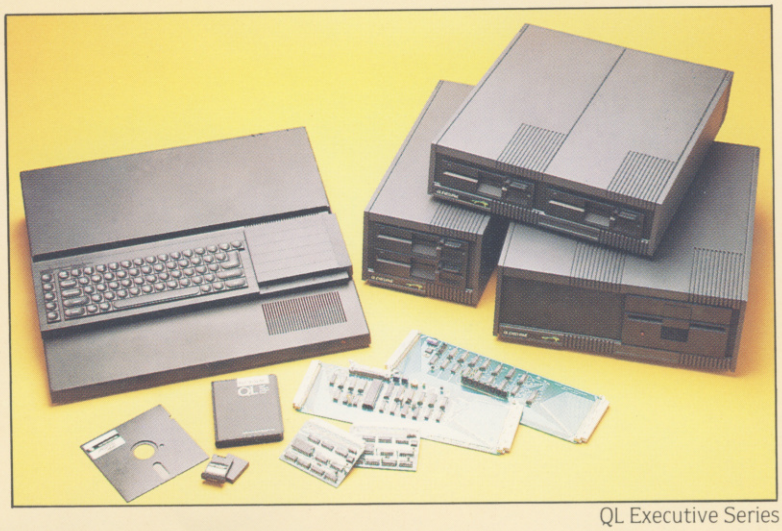

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- Includes Assembler and C Compiler
- Supplied on microdrive cartridges or floppy disk
- Supports 3", 3½", 5¼" and 8" floppy disks

N.B. CP/M requires either an Executive Series floppy disk system or an OScard to be present.

CP/M on Floppy Disk £59.50
CP/M on Microdrive £99.50

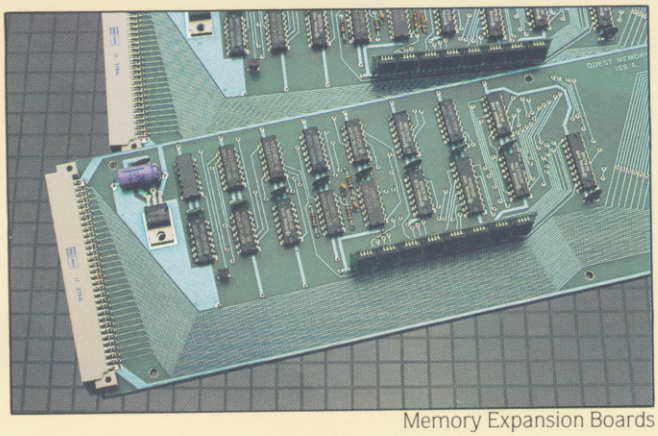
Memory Expansion Boards

The QL's standard 128K RAM is impressive, but because of the possibilities the machine offers, the programs used will frequently require additional capacity. Consequently, Quest has designed and produced a range of memory expansion cards to suit any requirement.

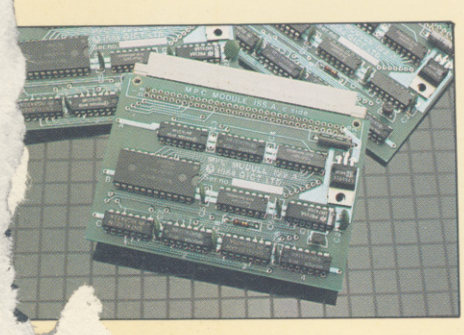
- Based on the latest 64K D RAM Modules
- Fully buffered
- Automatic refresh
- 150ns access to RAM contents
- Fit the standard QL and Quest's Expansion Console

The 64K unit can easily be powered by the QL's internal power source: larger units may need external power and provision for this has been made in their design.

64K RAM £115.00 **256K RAM £349.00**
128K RAM £185.00 **512K RAM £579.00**



Memory Expansion Boards



OScard

OScard

To enable microdrive or floppy disk versions to be used without the QL Executive Series floppy disk controller, this circuit board provides the necessary memory switch and RAM capacity. A full years warranty. **OScard £49.50**

Power Supply Unit

Specially designed to power Quest's memory expansion cards and the Expansion Console, this plug-in, stand-alone unit is covered by a full year's warranty.

Power Supply Unit £64.50

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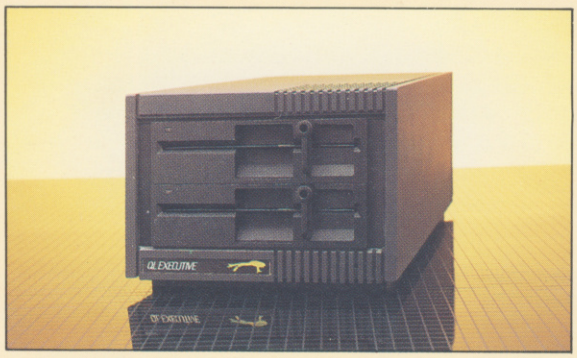
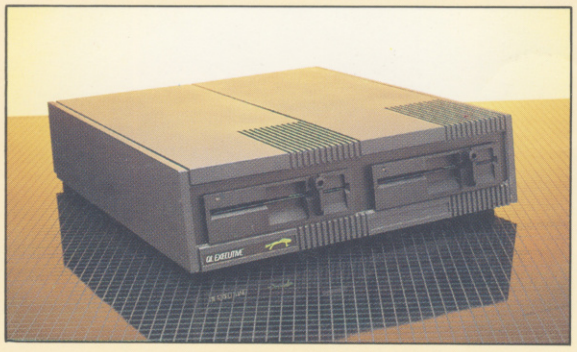




Disk Drives

With years of experience in disk drive technology, Quest have been able to harness their technical expertise and commercial purchasing power to offer QL users the speed, capacity and reliability of disk storage at truly affordable prices.

Complete with disk interface controller/memory switching unit, power supply and cables – no hidden costs – attractively styled and using state-of-the-art technology, the Executive Series of disk drives brings all the benefits of professional mass storage to the QL.

- Latest half-height technology
- All necessary equipment included
- Operate under CP/M and QDOS
- Full year's warranty cover

200K Floppy Drive* £295
400K Floppy Drive £419
800K Floppy Drive £499
2 x 200K Floppy Drives £469
2 x 400K Floppy Drives £579
2 x 800K Floppy Drives £695

*Full height technology

Tally

Business Accounts Software

Double Integration is the key to Tally, for the accounts modules contained in it link not only with each other but also with the four Psion packages – Quill, Archive, Easel and Abacus – supplied with the QL.

Tally I, comprises Sales Invoicing, Sales Ledger and Stock Control and Tally II consists of Purchase and Nominal Ledgers. These Quest programs enable the user to integrate, for example, Sales Ledger and Quill to produce standard letters without re-entering any data, or to use Easel to display in graphic form the data entered under Tally's Stock Control module.

Tally I £115.00
Tally II £59.50

Tally

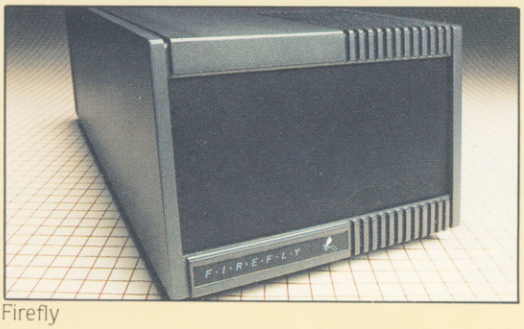
QL Expansion Console

Expansion Console

The Professional Desk Top System

Your QL and extra expansion cards can be conveniently and stylishly housed in the QL Executive Expansion Console which also serves as an ergonomically designed monitor stand and wrist-rest. Made of durable and attractive black aluminium, the console is available simply as the housing unit or a loaded module ready to take cards and including a cable guide.

Expansion Console £139
Monitor Stand/Handrest £69.50



Firefly

Firefly QL

The Firefly QL Winchester disk offers a full 7.5 mb of data and program storage with extremely fast access times. Ideal for large databases such as stock and customer lists, these products represent true value for money – larger capacities coming.

Firefly £1149.00

I enclose my cheque made payable to Quest International Computers Ltd. for _____

Please debit my Access/Visa Card Number

Send me your free 48 page catalogue.

My QL serial number is _____

Products will normally be delivered in 28 days

Please send me the following QL Executive products

Name

Position

@ _____

@ _____

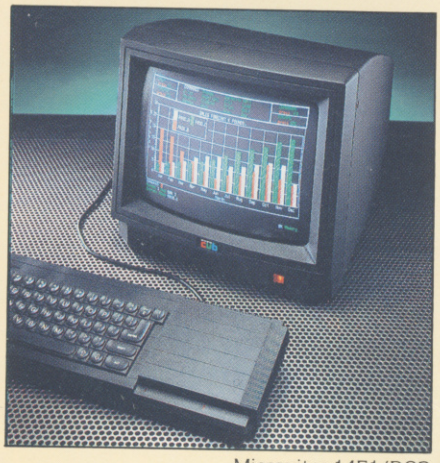
See the QL Executive Series on Stand Number 3
NEC Birmingham, 15th-18th January 1985

Executive Extras

As the major source of all QL related products, Quest is pleased to present a quality range from some of the world's leading manufacturers.

The Sinclair QL

Superb value for money, with 128k of user memory, 32 bit processor chip and 4 software packages (Word Processing, Spreadsheet, Graphics and Data base) included in the purchase price.
£399



Microvitec 1451/DQ3

Prism 14QL

Monitors

Microvitec 1451/DQ3

- 14" medium resolution colour monitor specifically designed for the QL
- 85 column text and outstanding graphics
- RGB TTL input

£274

Prism 14QL

- Portable, 85 column display
- Detachable anti-glare tinted glass
- Full A4 width on Quill
- Standard resolution for Easel graphics

£235

Printers

Brother HR-5

- Full 80 column printing
- Uses plain or thermal paper
- Compact and lightweight

£189

Brother HR-15

- Versatile daisy wheel printing
- Text re-printing
- Prints red and black
- Attachable cut sheet feeder

£519

Brother M-1009

- Dot matrix printing at 50 cps
- Bi-directional, logic seeking printing
- Excellent value for business or home use

£224

Epson RX-80 F/T

- 80 column printing at 100 cps
- Six user selectable graphics modes
- Six different densities
- Text and graphics on the same line

£334

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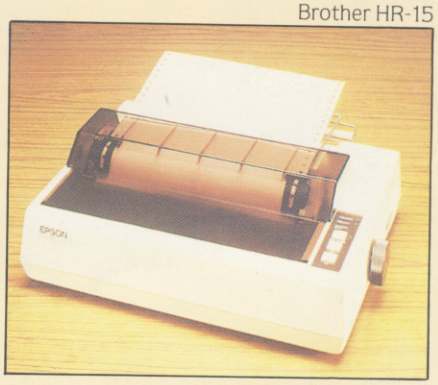
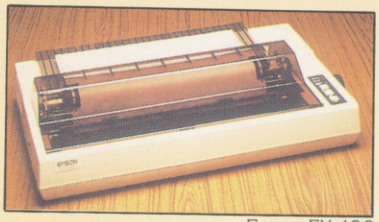


Epson RX-80 F/T



Epson FX-100

Epson FX-100

- High speed (160 cps) matrix printer
- 136 column capability
- Bi-directional, logic seeking printing

£664

Consumables

A full range of consumables is available for your business and personal use, from microdrive cartridges and floppy disks through line printers and personalised stationery to desks and chairs. Please phone for our 48 page catalogue.

TELEPHONE SALES DESK 04215 66488
ALL PRICES INCLUDE VAT, POSTAGE AND PACKING

CP/M is a registered trademark of Digital Research
QL is a registered trademark of Sinclair Research

A Quest Automation plc Group Company
School Lane, Chandler's Ford, Hants. SO5 3YY
Tel: 04215 66321 Telex: 47326

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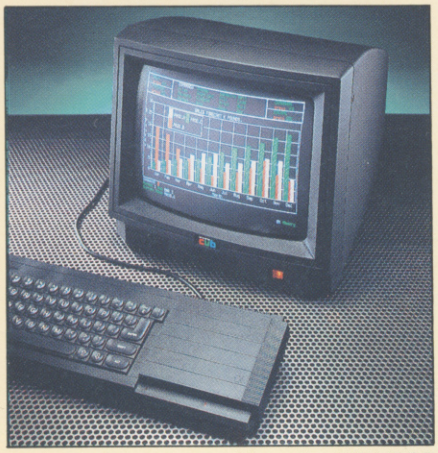

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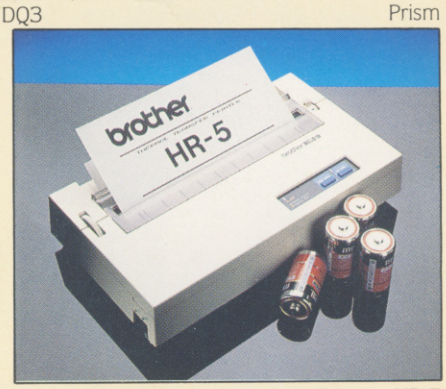

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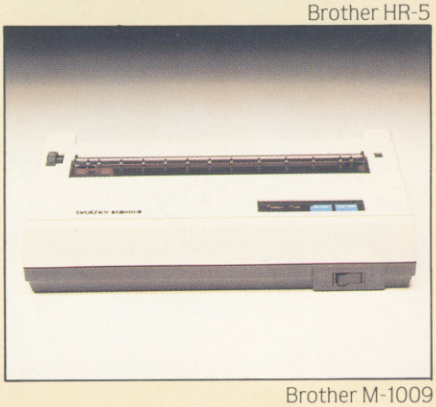

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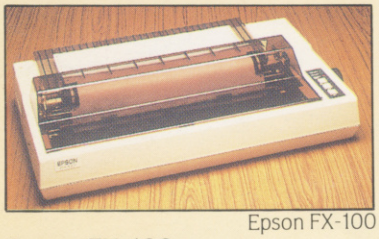

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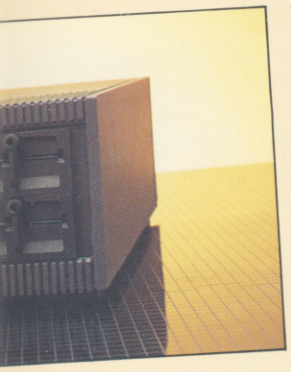

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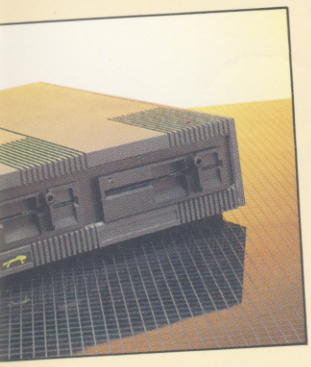

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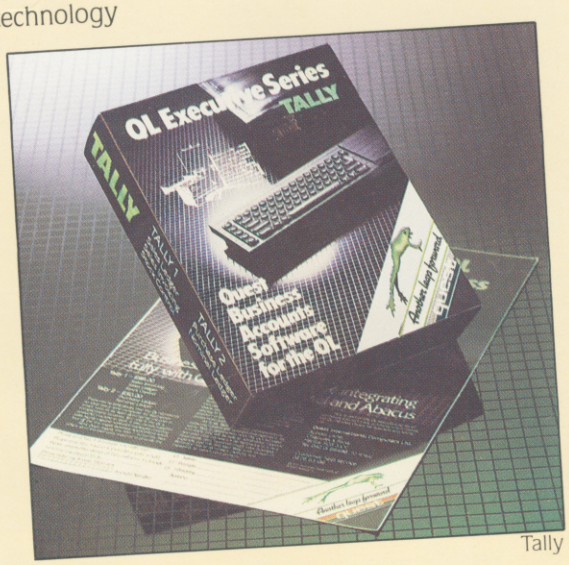

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Firefly £1149.00

Please send me the following QL Executive products

_____ @ _____
_____ @ _____
_____ @ _____
TOTAL _____

I enclose my cheque made payable to Quest International Computers Ltd. for _____
Please debit my Access/Visa Card Number
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Send me your free 48 page catalogue.
My QL serial number is _____
Products will normally be delivered in 28 days

Name _____ Position _____
Address _____ Tel. No. _____

Quest International Computer Equipment Ltd.,
School Lane,
Chandlers Ford, Hants. SO5 3YY
Tel. No. 04215 66321

EVER READY®

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Further advice on batteries and more reminder labels may be obtained by writing to:
The Ever Ready Power Advisory Service, 15 Welbeck Street, London W1M 7PF

SILVER SEAL®

SILVER SEAL	SILVER SEAL	SILVER SEAL	BLUE SEAL
SILVER SEAL	SILVER SEAL	SILVER SEAL	BLUE SEAL
SILVER SEAL	SILVER SEAL	SILVER SEAL	BLUE SEAL
SILVER SEAL	SILVER SEAL	SILVER SEAL	BLUE SEAL
SILVER SEAL	SILVER SEAL	SILVER SEAL	BLUE SEAL

EVER READY

REMINDER LABELS

To help you remember which Ever Ready battery is correct for each of your appliances, we have printed below a series of reminder labels. Simply write in the battery size on a sticker of the correct type, and stick one inside the battery compartment of each of your appliances. Use the selector guide in this booklet to help you decide which type of battery is appropriate.

Further advice on batteries and more reminder labels may be obtained by writing to:
The Ever Ready Power Advisory Service, 15 Welbeck Street, London W1M 7PF

GOLD SEAL	GOLD SEAL	SILVER SEAL	SILVER SEAL	SILVER SEAL	BLUE SEAL
GOLD SEAL	GOLD SEAL	SILVER SEAL	SILVER SEAL	SILVER SEAL	BLUE SEAL
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GOLD SEAL	GOLD SEAL	SILVER SEAL	SILVER SEAL	SILVER SEAL	BLUE SEAL

YOU COULD WIN
ONE OF 1000
FABULOUS PRIZES

150 **Remington** Micro Screen battery shavers

25 **AIWA** stereo radio/cassette recorders with 2 way speakers and 4 band radio

25 **Nikko** radio controlled 'Porsche 935 Turbo' cars

250 **Ever Ready** 'SOLAR 4000' torches

25 **AIWA** personal stereo cassette players

15 **Olympus** OM10 cameras with 50mm f1.7 lens and electronic flash

HO

The information containe
to help you make the corr
appliances. Ever Ready ha
batteries, one to suit ever
will make your choice easi
money.

5 **JVC** mini colour televisions with 6" screen

25 **Olympus** XA2 compa
35mm cameras w
electronic flash

HOW TO ENTER THE PRIZE DRAW

The information contained in this booklet is designed to help you make the correct choice of battery for your appliances. Ever Ready have a new range of three batteries, one to suit every type of appliance, which will make your choice easier and help you to save money.

All you have to do for your chance to win one of the 1,000 fabulous prizes shown here is to read the questions on the entry form, and then decide which battery is correct for each appliance mentioned. All the information you need to answer the questions is contained in this booklet, so please read on.

5 JVC mini colour televisions with 6" screen

25 Olympus XA2 compact 35mm cameras with electronic flash

25 Mattel 'Snake Mountain' electronic toys

50 Mattel 'Attak Trak' motorised toys

250 Ever Ready 3 pack C60 cassettes

5 AIWA stereo radio/cassette recorders with dual cassette decks, 18 watts per channel, 2 way speakers with 'Accoustic 3D' sound and high speed dubbing.

150 Metamec battery carriage clocks

THE RIGHT BATTERY FO

NEW SILVER SEAL

Silver Seal, which has replaced our Power Plus and High Power ranges, has an improved chemical formulation which gives cost-effective performance in almost all everyday applications. Silver Seal is most appropriate where, due to higher power requirement or heavier use, extra life is required, but the cost of alkaline batteries is not justified.

Silver Seal is guaranteed against leakage.

EXTRAORDINARY POWER
AT AN ORDINARY PRICE

TERY FOR EVERY USE

GOLD SEAL

The Gold Seal alkaline range gives premium performance in all appliances demanding a high current drain, which are used on a heavy or continuous basis. Gold Seal batteries also retain their power longer when not in use, give non-fade performance and offer **guaranteed protection against leakage.**

FOR PREMIUM LONG LIFE PERFORMANCE

BLUE SEAL

The Blue Seal range of standard batteries has been carefully formulated to provide good performance at a low price in applications where the total power requirement is relatively low and used intermittently.

FOR STANDARD LIFE AT A LOW PRICE

EVER READY®

SELECTING THE CORRECT BATTERY

Use this guide to help you select the correct Ever Ready battery for each of your appliances.

APPLIANCE / DAILY USE	RADIO TORCH CALCULATOR SHAVER TOOTHBRUSH	HAND LAMP CYCLE LAMP SMALL CASSETTE MOTORISED TOY HAND HELD GAME	FLASHGUN MOTOR-WIND HI-FI CASSETTE TABLE TOP GAME RADIO CONTROLLED TOY
UP TO 1 HOUR	BLUE SEAL	SILVER SEAL	GOLD SEAL
1 – 4 HOURS	SILVER SEAL	SILVER SEAL	GOLD SEAL
OVER 4 HOURS/CONTINUOUS	SILVER SEAL	GOLD SEAL	GOLD SEAL

N.B. USE SILVER SEAL FOR CLOCKS, DOORBELLS AND GAS IGNITION

BATTERY SIZE GUIDE

RO3 Size

PP3

6F22 Size

HP7

R6 Size

HP11

R14 Size

HP2

R20 Size

HOW TO ENTER

To enter our Free Prize Draw, simpl
statements opposite. Then, using y
information contained in this book
matches each statement and place
For instance, if you think a Gold Se
the application in the first stateme
alongside. Then fill in your name a
entry form to the address below. It
purchase an Ever Ready battery to
Prize Draw, PO Box 73, Mitcha

THE PRIZES

All entries received by the closing
into a Free Draw. The first 1,000 c
receive a prize. Prizes will be awar

The first **5** correct entries drawn will win an AIWA CAW20 stereo radio cassette recorder

The next **5** correct entries drawn will win a JVC mini television

The next **15** correct entries drawn will win an Olympus OM10 camera with flash

The next **25** correct entries drawn will win an AIWA CS250 stereo cassette recorder

The next **25** correct entries drawn will win an Olympus XA2 camera with flash

The next **25** correct entries drawn will win an AIWA personal stereo cassette player

RULES
The prize draw is open to all UK residents except employees of Ever Ready Ltd, their agents and dependent relatives.

CLOSING DATE FOR EN

ECTING CORRECT TTERY

eady battery for each of

	FLASHGUN MOTOR-WIND HI-FI CASSETTE TABLE TOP GAME RADIO CONTROLLED TOY
EAL	GOLD SEAL
EAL	GOLD SEAL
EAL	GOLD SEAL

BATTERY SIZE GUIDE

RO3 Size

6F22 Size (PP3)

R6 Size (HP7)

R14 Size (HP11)

R20 Size (HP2)

HOW TO ENTER

To enter our Free Prize Draw, simply read each of the seven statements opposite. Then, using your judgement and the information contained in this booklet, decide which battery matches each statement and place a tick in the relevant box. For instance, if you think a Gold Seal battery is correct for the application in the first statement, tick the Gold Seal box alongside. Then fill in your name and address, and send the entry form to the address below. It is not necessary to purchase an Ever Ready battery to enter. Address: **Ever Ready Prize Draw, PO Box 73, Mitcham, Surrey CR4 2XU.**

THE PRIZES

All entries received by the closing date (28.2.85) will be put into a Free Draw. The first 1,000 correct entries drawn will receive a prize. Prizes will be awarded on the following basis:

The first **5** correct entries drawn will win an AIWA CAW20 stereo radio cassette recorder

The next **5** correct entries drawn will win a JVC mini television

The next **15** correct entries drawn will win an Olympus OM10 camera with flash

The next **25** correct entries drawn will win an AIWA CS250 stereo cassette recorder

The next **25** correct entries drawn will win an Olympus XA2 camera with flash

The next **25** correct entries drawn will win an AIWA personal stereo cassette player

The next **25** correct entries drawn will win a Nikko radio controlled Porsche 935 Turbo

The next **25** correct entries drawn will win a Mattel 'Snake Mountain' game

The next **50** correct entries drawn will win a Mattel 'Attak Trak'

The next **150** correct entries drawn will win a Remington battery shaver

The next **150** correct entries drawn will win a Metamec battery carriage clock

The next **250** correct entries drawn will win an Ever Ready torch

The next **250** correct entries drawn will win a pack of 3 Ever Ready C60 cassettes

RULES

The prize draw is open to all UK residents except employees of Ever Ready Ltd, their agents and dependent relatives.

For results, list of answers and names of independent observers send an SAE marked 'winners' to the competition address.

CLOSING DATE FOR ENTRIES IS 28.2.85

The Galaxy's FIRST ever computer comic!

Zooming into touchdown at W H Smiths, John Menzies and other good newsagents now and every fortnight... only 40p.

Order your copy TODAY!

Bursting with great new comic strips... exciting stories... astounding facts... big prizes... competitions... fascinating quizzes... star personalities. And that's just the start of Britain's newest, brightest, most fun-packed comic ever!

LOAD RUNNER

It's the only comic for the age of the computer – it puts the rest back with the dinosaurs!

AVAILABLE NOW

and every fortnight... order your copy **TODAY.**

sinclair starter

40 QUESTIONS AND ANSWERS FOR THE NEW USER

1. What is ROM?
The word ROM means Read Only Memory. It is the type of memory in the computer which provides permanent storage for the program which runs the computer. It stores the program which will allow the user to operate in Sinclair Basic.

2. What is RAM?
RAM is another type of memory. Unlike ROM, the programs which are stored in it will be erased when the power is turned-off. The RAM is used for storing user programs and if the programmer wants to retain a program it must be put on to backing storage, such as cassette tape recorder.

3. I have had my ZX-81 for several weeks and would like to know which is the best 16K RAM pack?
Most RAM packs are the same internally but you should look for which has a good, protective plastic cover around it, such as the Sinclair. It should, if possible, be contoured to fit the back of the machine, unlike that of Sinclair. Price is also a factor and you can buy a good RAM pack for less than £20.

4. Should I upgrade my ZX-81 further or buy a Spectrum?
Present prices for second-hand ZX-81s make advertising your old machine expensive. You should also think about what you want from your machine. The Spectrum has colour and high-resolution graphics but you may not need those qualities if you use it for business. A ZX-81 with 16K RAM pack will provide reasonably good data processing and storage facilities with some of the software on the market. If you want to play arcade-

quality space invaders or need colour for graphic design, upgrade to a Spectrum would be a good idea.

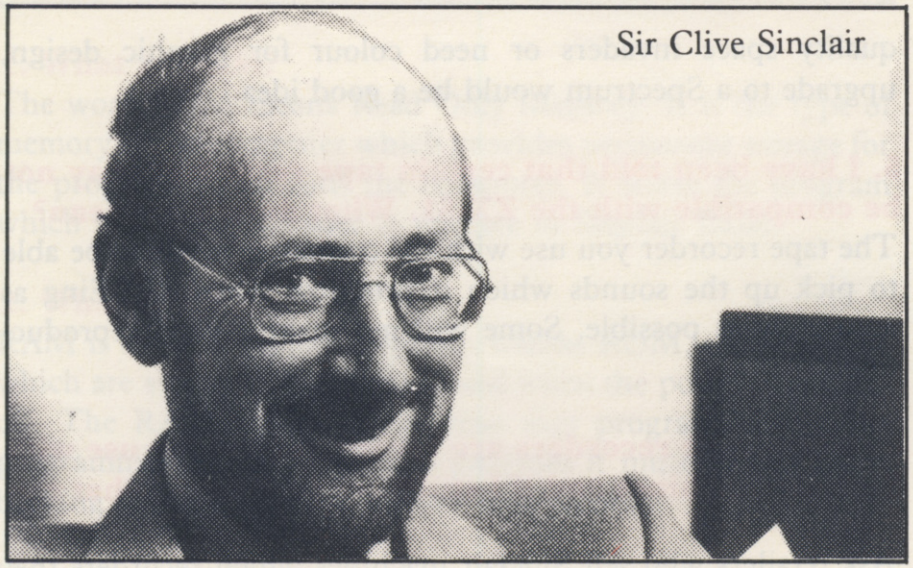
5. I have been told that certain tape recorders may not be compatible with the ZX-81. What does that mean?
The tape recorder you use with the computer needs to be able to pick up the sounds which it produces when SAVEing as accurately as possible. Some will not make a good reproduction.

6. Which tape recorders are recommended for use with Sinclair machines and if I still have problems, what can I do?
Ask retailers who sell Sinclair machines which recorders they would recommend.

If you are still having problems with LOADing and SAVEing you should try altering the volume and tone controls of the recorder. A good load is indicated with thick flashing horizontal bands across the screen when using a ZX-81. Thin bands indicate bad loading.

7. Is it true that certain colour television sets are not compatible with the Spectrum?
Several Japanese and German sets have been incompatible. In August, Sinclair altered the ULA of the Spectrum to take care of the sets which have caused the problem. The problem sets for older machines are Hitachi, Grundig and Toshiba.

8. Can I use my stereo cassette deck to put programs into my computer?



Sir Clive Sinclair

If you want to use it the recorder must have a mono tracking system. Switch to that and you should have no difficulty.

9. How can I cure RAM pack wobble?

You can stick a piece of Blu-tack between the casing of the pack and the edge of the keyboard, or you could run some tape round the pack and the connection to the keyboard. You could, however, buy a contoured RAM pack in the first place.

10. Sometimes when I am entering a program the screen display changes and I cannot enter anything else into the machine. What should I do?

Your computer has crashed and you will have to pull out the plug and start again. The fault occurs usually when the computer gets something with which it cannot cope. If it continues to happen there could be something wrong with the

machine and you should visit the dealer from whom you bought the machine for advice.

11. I have a 16K Spectrum and have tried to enter a program which uses 12K of RAM. I cannot get all the program into the computer. Why?

The computer will allow only 9K of RAM to be used for program storage. The other 7K is used for the high-resolution screen display. So you can run only 9K programs on the 16K machine.

12. Where can I buy software and what are the best places to do so?

Most electrical stores seem to sell software. The biggest of the chain stores to sell Sinclair products is W H Smith; you can buy a wide range of titles from its computer branches. Boots and Rumbelows also provide a good selection. It is best to go to the bigger stores, as they have trained sales staff to help you with a problem.

If you are looking for a specific type of product, such as a sales ledger or mailing list, you should look at reviews in magazines which give more information on what can be obtained. The reviews will also deal with mail order products which cannot be obtained from chain stores.

13. Sometimes in magazine program listings the computer is told to GOTO a line number which does not exist. Surely the program will stop with an error message?

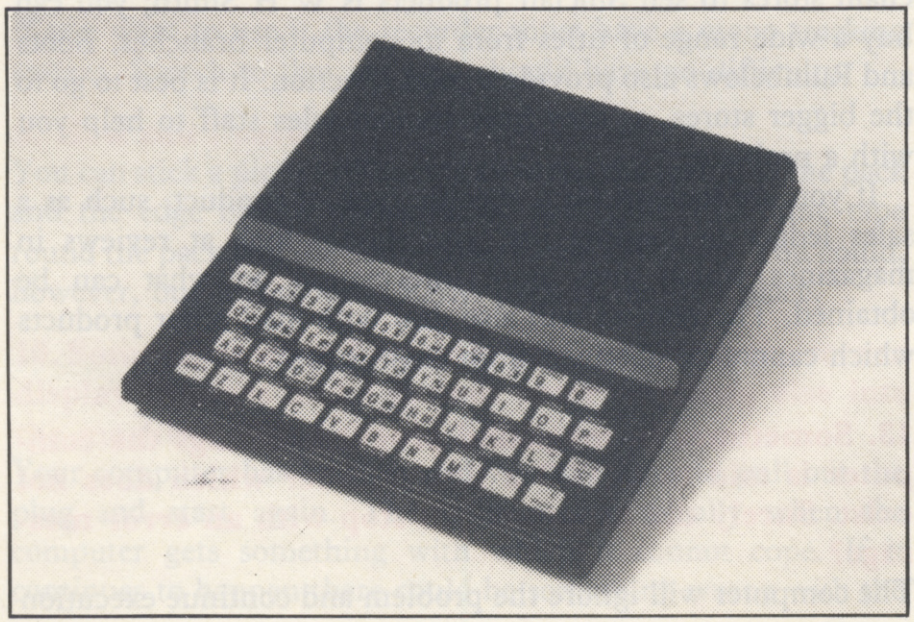
The computer will ignore the problem and continue execution

from the program line after the non-existent one. The difficulty is caused because the programmer has changed some lines without changing the GOTOs to the new destination numbers.

14. I have entered a program which will not work properly. What should I do?

Compare the listing which you have, either from a magazine or which you have written, with what you have on the screen. It is easy to mis-type a line of program and not notice it immediately. If you can find the line at which the program stops, look at the type of error which could occur at that line and check any lines which could correspond to it.

For instance, if you have E OUT OF DATA you should look at the line on which the error occurs and the list of DATA



which must appear in the program. If you get a VARIABLE NOT FOUND error you should run through the program to see if the variable is defined before it is used in the error line. If it is in the paper listing and not on the screen you have found your error.

15. Which are the best cassette tapes on which to record?

The C12 and C15 cassettes which are produced especially for computers by W H Smith are the best. They are ideal because you can store a few programs on them and not waste tape. If you buy C60s you will put more programs on to one tape and have to guess where they are every time you want to use them. Most high-density, low-level noise tapes should work with the computer.

16. I have found the Spectrum manual difficult to read. Can you suggest an easier book which I will be able to understand?

One of the best books on the market about the Spectrum is *Programming Your Spectrum* by Tim Hartnell and Dilwyn Jones. It can be obtained from Interface and includes expanded explanations of all the instructions you can give to the computer.

17. I would like some technical information about the inside of my computer. How would I obtain more details?

Sinclair Research is not helpful in this respect. You should obtain books such as *20 Simple Electronic Projects for the ZX-81 and Spectrum.* This book is by Stephen Adams and can be

obtained from Interface. It contains a great deal of information about electronics. Alternatively, you could buy *Sinclair Projects*, a sister publication of *Sinclair User*.

18. I want to attach my own extensions to my Spectrum but that will involve unscrewing the back. Will that invalidate my guarantee?

Any major modifications which you do inside your Spectrum or ZX-81 will invalidate your guarantee. If, however, you take off the back to do minor alterations which can be removed at a later date it is unlikely that Sinclair Research would regard that as an invalidation.

19. We have a Spectrum at home but my child has a BBC micro at school. Can programs be transferred from one to the other?

That is not possible because the machines have different data transfer rates between the cassette recorder and the computer. The languages which the computers use are also incompatible.

20. I own a Spectrum but I want to enter a program for the ZX-81. It seems identical to the one I would use for the ZX-81. Can I use it?

Most programs written for the ZX-81 will run on the Spectrum, with three exceptions. They are that SLOW and FAST cannot be used, the graphics are different and, if the program uses PEEK and POKE, the memory locations are different.

21. Is software for machines such as the Oric, Vic-20 or BBC micro compatible with Sinclair machines?

Converting listings from another machine to Sinclair computers is a very complex operation. In some cases because of the way the screen is set out and the PEEK and POKE instructions in a program it is impossible. Cassettes from other machines will not be compatible because the machine languages are different and the data transfer rates from tape to machine are incompatible.

22. I find that Basic is so slow in the execution of a program that I have been tempted to learn machine code. Could you tell me if there is a half-way stage between Basic and machine code?

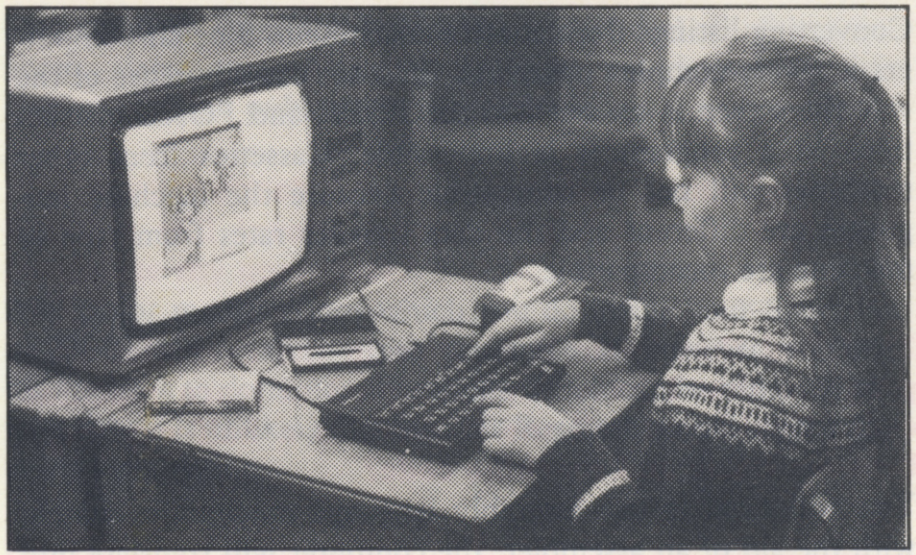
You will need to use assembly language mnemonics which, with the aid of an assembler, the computer will translate into machine code. The Zeus assembler for the Spectrum can be obtained from Crystal Computing and for the ZX-81 there are plenty of machine code books on the market which teach assembler.

23. I want to learn about machine code. How can I do so?

The best way at present is from books. Buy a book which is specific to your machine if you are learning. A book which looks as if it was written for the young is the best, as many diagrams and simple text are the best to understand. The books by Dr Ian Logan from Melbourne House are excellent.

24. How do I determine if the Spectrum I have bought from a friend is 48K or 16K?

A friend may have a 48K program which he could lend you. Try to load it into the machine and if you get 4 OUT OF



MEMORY appearing on the screen after about a minute you know that the RAM size is 16K.

25. I have noticed such statements as LET A = PI/PI in program listings. What do they mean?

They are memory-saving devices which are used to cram programs into a 1K ZX-81. Numbers occupy more memory than keywords or variable names so, where possible, if a certain number is used a good deal, put it into a variable and use the variable name. The statement in question will put the value 1 into A without using any numbers directly. The PI function gives 3.14159. . . and if it is divided by itself will result in the value 1. To get zero you could use PI-PI.

26. I want to use my computer for filing purposes. Can I buy a ready-made program?

There are several of them available. Two of the best are from Campbell Systems. The Fast One is available for the 16K ZX-81 and Masterfile is available for the Spectrum.

27. I have a ZX-80 and have just bought a Spectrum. What should I do with my old machine?

You could try to sell it but there would be few buyers. The alternative is to develop electronic equipment such as burglar alarms or temperature sensors.

28. I have a computer and tape recorder. If I want to buy a peripheral, which is the most useful and which should I buy first?

Which you will buy will depend on what you want from your computer. If you want to use it for business you could buy a Centronics interface for a printer and a dot matrix printer such as the Seikosha GP-100A. If you have a ZX-81 and want to use it for business you may also need a keyboard. If all you want to do is to play games, you might buy a joystick interface and joystick.

29. I would like to buy a non-Sinclair printer for my machine. How should I look for one?

First, you will need an interface to attach the computer to the printer. You can have one or two types. A Centronics interface is ideal for printers and that type of interface is strictly used with them. The Sinclair Interface 1 contains an RS-232 interface which can be used with a printer or to perform other tasks, such as talking to other computers. So while the Centronics interface is printer-specific, the RS-232 is not.

It is best not to buy a printer by mail order. Try to see a demonstration of one in a computer store and ask the assistant to show you how it works. Do not rely on manuals.

30. Why does my computer over-heat when it has been running for a long time?

It depends what you call over-heating. The computer will become warm and there is nothing you can do to prevent it happening. The heat will not damage the computer in any way, so you should ignore it. If the computer or the power supply seems hot and you are worried about it, you should go to your dealer and ask about the problem.

31. How do you get the user-defined graphics which are often put into Sinclair programs?

If you find a shape which is not on the Spectrum keyboard it

will be a user-defined graphic. Look for the part of the program in which the graphics have been designed. That will be in the form of a READ statement followed by DATA. If the data contains letters such as "a", "b", "c", they are the keys being used.

All you have to do is run the program, starting at the READ line. Then press the keys which are indicated in the DATA lines, after you have gone into GRAPHICS mode. When you have done that insert the graphics letters in place of the shapes in the listing. When you run the program the shapes will be defined.

Sinclair Programs and *Sinclair User* use a special graphics notation to denote which keys should be pressed for certain character displays. Everything in brackets in a quotation is graphics notation and should not be typed-in literally. Each instruction is separated by a colon. Graphics can start in one of three ways. An 'i' means inverse of the character which follows. A 'g' means that you must go into graphics mode before typing the characer and 'ig' means that you should use inverse and graphic at the same time.

32. What should I do if I have difficulties? Whom should I contact at Sinclair Research?

The first place to ring is Camberley 0276 681666 or 685311. That is where all deliveries are despatched and it is there that someone can tell you what to do if your machine should be faulty. If possible, avoid telephoning Cambridge. If you have technical queries which cannot wait, however, you should contact the Customer Relations Department on 0223 353204.

33. If I have a difficulty with commercial software, what should I do?
First go back to the software house concerned and ask it to solve the problem. If you have not received a reply within 28 days and the company belongs to the Guild of Software Houses you can seek assistance from that organisation. GOSH can be contacted at 71 Park Lane, Tottenham N17. The secretary is Mike Johnson.

34. What is telesoftware?
Listings of computer programs are stored on a central database. From there the programs can be sent along telephone lines to users who have computers.

35. What is Micronet 800?
Micronet is a series of databases into which you can link your Spectrum with a VTX-500 modem. The system offers telesoftware as well as news, reviews and software hints. It also allows you to gain access to Prestel, the Post Office database. The Micronet Spectrum modem costs £79 and more information can be obtained on 287 3143.

36. I have problems LOADing cassette programs into my computer. What is wrong?
The tone and volume controls of the tape recorder are not set properly. Try altering them in small graduations until you get the best combination. Unfortunately there is little else you can do.

37. I have difficulty with saving programs on to cassette. How should I combat it?
The quality of your cassette tape is important. You should try

to get low-noise tapes and set the tone level on the recorder to high. Make sure that the heads on your tape recorder are aligned properly and that they are cleaned regularly.

38. I want to buy a new keyboard for my computer. How should I choose one?
That depends whether you want to take your computer to pieces. Some keyboards will fit over the original keyboard casing of your machine but many require soldering to attach them. The easiest type to fit are those like the Memotech keyboard which clip in to the back of the computer, leaving the original casing free. Try to avoid keyboards which require a good deal of soldering as you may damage your machine.

39. I have heard that Sinclair machines use a Z-80A. What is it?
The Z-80A processor is what makes the computer a computer. It does all the computing and designates what each bit of the machine should be doing. It organises the memory and co-ordinates the input and output of informaton.

40. Finally, where can I obtain all the information about the world of Sinclair computers?
The best place is *Sinclair User, Sinclair Programs* or *Sinclair Projects.* If you want to keep up-to-date with the Sinclair scene, news and reviews, buy *Sinclair User.* Most of the best program listings are in *Sinclair Programs* and if you are interested in the serious electronics side of the computers, read *Sinclair Projects.*

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Example: converting Hex to Decimal

E74B	=	E000	= 57344	= 59211
	+	700	+ 1792	
	+	40	+ 64	
	+	B	+ 11	

Example: Decimal to Hex

Keep on subtracting the largest possible decimal number in the table, i.e:

33715		Hex
−32768	=	8000 = 83B3
947		+
−768		300
179		+
−176		80
3		+
3		3

Decimal to Binary

When converting Decimal to Binary, first convert to Hex and then substitute the four-digit binary code in the leftmost column for each Hex digit.

Example: Decimal 3290 =
Hex CDA = Binary 1100|1101|1010 = 110011011010

Example: Binary 10110100 = 1011|0100 = B4
= Decimal 180

pto

Binary-Decimal-Hex Conversion Chart

BIN	DEC	HEX	DEC	HEX	DEC	HEX	DEC	HEX
0000	0	0	16	10	256	100	4096	1000
0001	1	1	32	20	512	200	8192	2000
0010	2	2	48	30	768	300	12288	3000
0011	3	3	64	40	1024	400	16384	4000
0100	4	4	80	50	1280	500	20480	5000
0101	5	5	96	60	1536	600	24576	6000
0110	6	6	112	70	1792	700	28672	7000
0111	7	7	128	80	2048	800	32768	8000
1000	8	8	144	90	2304	900	36864	9000
1001	9	9	160	A0	2560	A00	40960	A000
1010	10	A	176	B0	2816	B00	45056	B000
1011	11	B	192	C0	3072	C00	49152	C000
1100	12	C	208	D0	3328	D00	53248	D000
1101	13	D	224	E0	3584	E00	57344	E000
1110	14	E	240	F0	3840	F00	61440	F000
1111	15	F						

CODE	ASCII	ZX81
0	NUL	Space
1	SOH	
2	STX	
3	ETX	
4	EOT	
5	ENQ	
6	ACK	
7	BEL	
8	BS	
9	HT	
10	LF	
11	VT	"
12	FF	£
13	CR	$
14	SO	:
15	SI	?
16	DLE	(
17	DC1	)
18	DC2	>
19	DC3	<
20	DC4	=
21	NAK	+
22	SYN	-
23	ETB	*
24	CAN	/
25	EM	;
26	SUB	,
27	ESC	.
28	FS	0
29	GS	1
30	RS	2
31	US	3
32	Space	4
33	!	5
34	"	6
35	#	7
36	$	8
37	%	9
38	&	A
39	'	B
40	(	C
41	)	D
42	*	E
43	+	F
44	,	G

CODE	ASCII	ZX81
45	-	H
46	.	I
47	/	J
48	0	K
49	1	L
50	2	M
51	3	N
52	4	O
53	5	P
54	6	Q
55	7	R
56	8	S
57	9	T
58	:	U
59	;	V
60	<	W
61	=	X
62	>	Y
63	?	Z
64	@	
65	A	
66	B	
67	C	
68	D	
69	E	
70	F	
71	G	
72	H	
73	I	
74	J	
75	K	
76	L	
77	M	
78	N	
79	O	
80	P	
81	Q	
82	R	
83	S	
84	T	
85	U	
86	V	
87	W	
88	X	
89	Y	

CODE	ASCII	ZX81
90	Z	
91	[	
92	\	
93	]	
94	↑	
95	—	
96	`	
97	a	
98	b	
99	c	
100	d	
101	e	
102	f	
103	g	
104	h	
105	i	
106	j	
107	k	
108	l	
109	m	
110	n	
111	o	
112	p	▀
113	q	▀
114	r	▌
115	s	▐
116	t	
117	u	
118	v	
119	w	
120	x	
121	y	
122	z	
123	{	
124	¦	
125	}	
126	~	
127	DEL	

Note: ZX81 Inverse Characters – add 128 to value.

ASCII Reference Table